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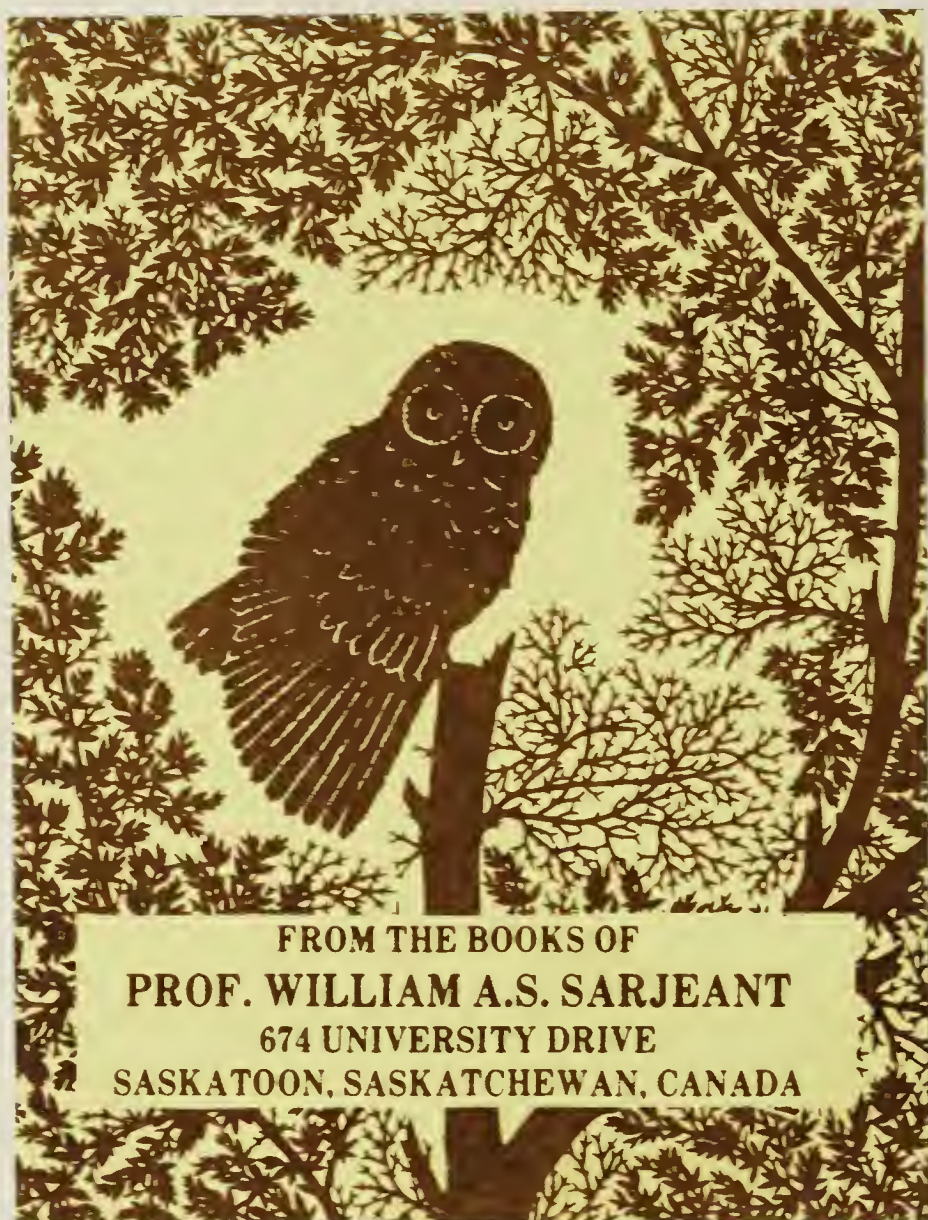
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# THE *Blue Jay*

Vol. XXIII, No. 1

SASKATOON, SASK.

March, 1965



Black-tailed Prairie Dog family

Photo by Ruth Chandler, Shaunavon

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# PRAIRIE DOGS AND FERRETS

At an executive meeting at Davidson on January 16, 1965, it was announced that arrangements were being made by the Saskatchewan Department of Natural Resources to turn over the lease of a quarter section of land, with a thriving colony of about 400 prairie dogs, to the Saskatchewan Natural History Society. This quarter section is in the Frenchman River valley east of Val Marie (NE 23-2-13 w3). We owe a debt of gratitude to Mr. E. Purask, who kindly relinquished his lease on the quarter. The land was then transferred from the jurisdiction of the Department of Agriculture to Natural Resources; shortly it will apparently be in our hands. This forward step in the protection of a rare Canadian mammal is the result of efforts by our Society, and we should all feel some pride in this accomplishment. Incidentally, if you have visited the Museum of Natural History in Regina then you have already seen a view of this colony, for the prairie dog exhibit in the museum depicts this area.

In a letter recently published in the colourful magazine *Animals* (for 3 November, 1964; 5:120), Jennifer Fisher reports a possible observation of the rare Black-footed Ferret by her parents at Bellevue, Alberta. This is in the foothills of the Rocky Mountains in southern Alberta. We have written to Miss Fisher for further details.

The Black-footed Ferret is a large weasel which is more robust and mink-like than our other native weasels. It has pale yellowish upper-parts with a distinctive broad black band across its eyes like a mask. The larger males may be 23 inches in total length, including the black-tipped tail which is about five inches long. Its feet, as the name suggests, are blackish. Our various weasels feed on a variety of animals in accordance with their size. The small Least Weasel feeds mainly on mice, whereas the larger Long-tailed Weasel can take rabbits and other equally large prey. The Black-footed Ferret, which is the largest weasel, preys mainly upon prairie dogs. It is a rare and little known mammal which few people have had the privilege of ever seeing. We would be pleased to hear from anyone who may have information about wild ferrets.



Photo by R. R. Taylor  
Black-tailed Prairie Dog

The status of the Black-footed Ferret (*Mustela nigripes*) has recently been reviewed by Charles L. Homolka in *Audubon* (July-August, 1964; 66: 244-246). The range of this vanishing species "apparently has coincided with that of the prairie dog on which it preys." Homolka's detailed map of the present range of the ferret does not include Canada, although there are early records for Alberta and, especially, Saskatchewan. In Canada, there are more museum specimens of ferrets than may ever occur here again, but mainly because of the lack of a food source. The continuing widespread poisoning of the prairie dog is doubtless eliminating other associated wildlife species. In our discussions of the need for preservation of the Black-tailed Prairie Dog colonies in this province we have said little about the ferret. It may well be that by protecting as large a number of prairie dogs as possible we may also be extending a lifeline to the ferret.



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# In Memory of Hugh Boyd

by Ruth and Peter McLintock, Winnipeg

Hugh Boyd was a man much loved by everyone who knew him. He was pleasantly eccentric in some ways, and had a great interest in and knowledge of the outdoors. But birding was his favorite hobby and when the Boyds lived in Regina in the early 1930's, Hugh was one of the city's most knowledgeable birders.

The one thing his friends remember best about him is that in all their experience they had never known anyone as absolutely accurate and meticulous about identifying. The Regina Natural History Society had a standing joke that Hugh never identified a bird until he had counted every feather. Once you had seen a bird with Hughie, you never mistook it again as long as you lived, for you looked at it from every angle and checked it against all the books. When you saw it again you would know it. If Hugh wasn't absolutely convinced of a bird's identity, he refused to record it.

On one occasion a group of society members were out on a hike and saw, they were convinced, a dickcissel. Everybody was sure except Hugh. The bird flew off before he was convinced, so he refused to record it; and nobody else had the nerve to put it down either. In this respect Hugh was fussy. But it wasn't a sticky fussiness; he was always great fun to be with.

In those days the Boyds lived in a big old-fashioned apartment in Victoria Court, that had a fireplace in the living room. One of the nicest things that could happen to you in those days was to be invited to the Boyds for an evening, after birding, or in the winter time.

The Boyds always asked in a congenial group and you spent the evening around the fire talking about things that interested everyone—aided by Hugh's large and comprehensive natural history library. Helen, his wife, was (and is) a first-rate cook, which helped.

Some 15 years ago, long after the Boyds had moved from Regina to

Ottawa, the writers also spent a year in the capital city. Their first Christmas Day, which might have been a rather lonely one, they spent at the Boyds. For Hugh never forgot his old friends and never forgot the West (about which he was considered, rightly, in Ottawa to be an expert). Christmas dinner at the Boyds that day was an hour and a half late, for, as usual, Hugh had forgotten the time and had taken his boys skiing in the afternoon. This was one of his idiosyncrasies—he was never on time for anything; and the later the day wore on, the further behind Hugh got in his schedule.

His love of the outdoors, and his love of walking, stayed with him to the end. Only a couple of months before his death he was in Charlottetown with a group of newspaper people, reporting the Centenary celebrations there. The group stayed at a motel some three miles from the city. At 7 a.m. on the morning after their arrival, a Winnipeg journalist was horrified (and flattered) to be aroused by Hugh, who insisted that the three-mile walk into town would do them both good.

He was quite an unforgettable man and his memory will always be with those who were lucky enough to be among his friends.

Editor's Note: On December 15, 1964, the Regina *Leader-Post* carried the news of the death of Hugh Boyd in Ottawa the previous day. Mr. Boyd started his career with the *Leader-Post* in 1929, two years later became publicity and advertising director for the Saskatchewan Co-operative Wheat Producers, and in 1939 joined the CBC staff as the first Prairie regional farm commentator. Later he served on the staff of the *Winnipeg Free Press* and the *Ottawa Citizen*. Many *Blue Jay* readers in the West will remember him as the Prairie regional farm commentator, and even before this as the writer of the spirited column "About Birds" in the *Leader-Post* from 1933-1937. Boyd's columns in the files of the *Leader-Post* were consulted for records for the *Birds of Regina*.



## “Signs of Spring”

*Harley Ranson's experiences of spring migration in the Tyvan district 1916-1934*

Reported by **Margaret Belcher**, Regina

In 1916 a young farmer at Tyvan, Saskatchewan, began to record the arrival dates of birds that returned each spring to the farm. He did not know all the prairie birds, so he had to rely on careful study of each new bird and on being able to identify it by using Reed's bird guides. He had no binoculars, and made all his observations with the naked eye. Looking back now on the birds he came to know in 19 years of keeping spring arrival dates (1916-1934), Harley S. Ranson recognizes that he may have made some errors in identification, for he worked alone without being able to compare his records with other observers'. However, these would be mainly errors resulting from confusing birds with similar characteristics. They could, of course, involve species for which the normal range does not extend to Saskatchewan, for in those early years there was no readily available check-list of the province's birds.

For 19 years, spring migration records were carefully kept, each bird being recorded as it arrived at the farm some eight miles northeast of Tyvan (18-13-12 W2). At the end of the period, Harley Ranson moved to Manitoba and was unable to continue his work. On three occasions when Harley Ranson was away in the city, the spring records were kept by his brother, Fred Ranson.

Although the Tyvan records could not be continued beyond 1934, and although they represent only the simple record of arrivals without further data, they are of value for several reasons. In the first place, they provide almost 20 years of *continuous* records. Secondly, they record observations for the early years in Saskatchewan when few people were keeping such notes, and for an area not covered by any other survey of local bird life either published or currently in preparation. Although Mr. Ranson was an untrained birder working on his own, his carefully kept notes contribute to our understanding of the birds of the Tyvan district, just as they increased his own knowledge of them.



Ranson farm at Tyvan

Tyvan is a small prairie village 50 miles southeast of Regina in grain-growing country that is treeless except for farm shelterbelts. However, the Ransons' farm eight miles to the northeast of Tyvan was situated just on the western edge of what would now be termed parkland, and although there was no natural tree growth all the way from the farm to Regina if you travelled west, the presence of trees to the east made the farm itself a good place to see birds. The farm was rolling and had several good "sloughs" or pot-holes which attracted waterfowl. When Harley Ranson's father homesteaded in 1903 there were only a few small aspen poplars (*Populus tremuloides*), but he planted trees on three sides of the yard and protected everything that resembled a tree. By the time Harley began to make bird notes there was some tree cover in the farmyard and wherever there were low spots or sloughs in the fields. About a mile and a half west of the farm ran the Manybone Creek (a tributary of the Wascana), and the day the creek began to flow was as eagerly awaited a sign of spring as the arrival of the first Horned Larks. The creek had no trees along it, however, most of the creek bottom being hard clay where trees just did not grow. The highest part of the farm was the height of land dividing the run-off to the Manybone Creek from that of the Little Stoney which empties into Gooseberry



Lake, and the elevation above sea level of this height of land would be approximately 2,000 feet.

Harley Ranson recorded more than the arrival of the first birds, for in the country people watch for every sign of the coming of spring. On the Saskatchewan prairies, after a long winter, there is special meaning in the sound of the first frogs, the appearance of the first "gopher" and the blooming of the first "crocus," and from year to year there is a comparison to be made between the first dates of farming operations, the first day the farmers are "on the land." So Mr. Ranson's records become a kind of journal of a country spring.

Take, for example, the dates that are circled on the calendar for 1917. On March 5 the first Horned Lark was seen, then on March 19, Harley's father saw a gopher, and on March 31 Harley killed his first gopher of the season. By April 17 the farmyard ducks and turkeys had laid their first eggs; by the 19th there were catkins on the poplars and by the 20th the first crocus was in full bloom and frogs were heard. These dates, of course, vary from year to year. In 1918 the first crocus was noted on March 24, and frogs were heard, almost a month earlier than in 1917; and the good weather permitted a game of tennis to be played on March 21 and the car to be used on March 24. Ordinarily buggies and wagons preceded the car, as in 1919—"went first time in buggy" April 3 and "had first car ride" on April 17. Then on a suitable day in April field operations got under way: "started to harrow and seed" April 26, 1919; "started on the land" April 30, 1920; "started seeding" April 28, 1921; "started on the land" April 26, 1922 and "to seed" April 27; "started on the land" April 30, 1923 and "to seed" May 1; "started to harrow" April 19, 1924 and "to seed" April 22; "started to plough" April 14, 1925, "to harrow" April 17, and seeding April 21; "started seeding" April 21, 1926; "first work on land" April 15, 1927; "started to seed" April 30, 1928; "started on land" April 17 1929 (but "some were harrowing three weeks before this") and "started seeding" April 19; "we started on land" April 19, 1930, and "started sowing" April 22; "started to harrow" April 7, 1931 ("some started April 4") and "started to seed"

April 10 [this being the dry, early spring following the mild winter of 1930-31] "some started to plow" April 17, 1933, but "work not yet general"; "started to plow" April 12, 1934 ("some started on the 5th"). This sequence of dates establishes the regularity of the pattern of spring operations on the prairie farm, for it will be seen that only an especially mild and dry winter appreciably advances the date of the first cultivation. This was true in the spring of 1931, one of the driest years in southern Saskatchewan.

Mr. Ranson's usually terse notes are amplified to record the unusual weather conditions of the winter of 1930-1931 and the following spring and summer:

"The winter of '30 and '31 was mild and we had very little snow, the summerfallows being bare almost all of the time. The spring was backward but land work began on April 4. On April 8 the first of many severe dust storms occurred; the ground was very loose and there had not been enough moisture to cake the surface. The summerfallow crops that were seeded germinated well and came up nicely but the severe dust storms from all directions kept them cut off. Then in the latter part of May there were one or two severe frosts, followed by a severe dust storm. After that most of the crops on fallow land died and only small patches survived at all. Many crops sown on spring and fall plowing came up and withered away.

"Practically no rain fell until after the middle of July, and then we had a few good rains which started some of the late crops (oats and barley). These were later cut for green feed as the frost held off until very late in the fall. Many people had neither feed nor seed, while others had crops which yielded from 3-4 bushels per acre of wheat. Some flax was harvested but practically no rye, oats or barley was cut except for green feed. The sloughs did not produce any hay and the upland pastures might be said to have never changed color unless it was to become a little more black from dust and heat. This was the first virtual crop failure in southern Saskatchewan."

The mild winter of 1931-1932 encouraged an unusual bird population. Horned Larks were seen all winter, regularly after January 20, and some



kinds of hawks remained all winter. A crow was seen on Christmas day and one on January 25, and a Robin was seen at Christmas and again in January.

It is only in this setting of everyday farm activities that the arrival of the first spring birds has its full meaning. Taken out of context, Mr. Ranson's list may seem unimpressive because it records no rare ornithological finds, but as part of the picture of the country coming alive in spring his bird arrivals have real significance. The same early spring unlocks the waters of the Manybone Creek and brings back the first Horned Larks: in 1934 the creek was flowing about February 15 and the Horned Larks were back on February 22, whereas in 1922 the creek opened on March 8 and the Horned Larks appeared on March 7. The Marsh Hawk appears with the first pussy willows (e.g., hawks and "willow catkins" on March 15, 1934), and it is time then to get out the wagon and buggy, perhaps even the car. After the first insects—butterflies, mosquitoes, "rain flies"—will come the warblers and the swallows, and by the time the first lady bug

appears it will also be time to watch for the Rose-breasted Grosbeak. So the pattern of the season establishes itself, a complex of many "first arrivals."

Besides being signs of spring, first arrivals often meant impressive sights, as for example when migrant cranes and geese came in. Mr. Ranson writes that "all the years that I lived at home it was common to have a 40-acre field covered with Sandhill Cranes and on the next half-section there would be flocks of Canada Geese. These would both remain for a week or more and then continue northward."

Among the first arrivals reported each year by Mr. Ranson, I have of course taken a special interest in the birds. Here, where space does not permit the publishing of his journal in its entirety, I think it is worthwhile to abstract from it a table showing comparative spring arrival dates for all the well-established species of birds in the Tyvan district. People in other parts of Saskatchewan will be interested in making comparisons between these arrival dates and the dates that would be normal for their areas.



Golden Plover during spring migration

Photo by Fred W. Lahrman



	1916	1917	1918	1919	1920	1921	1922	1923
Horned Grebe .....			My10	My18	My 2	My15	Apr23	My 1
White Pelican .....								
Double-cr. Cormorant .....								Ap
American Bittern .....								
Whistling Swan .....				My 1	Apr19	My 5		
"Geese" .....	Apr11	Apr22	Mar25	Apr 4	Apr 8	Apr12	Apr 4	Ap
Mallard .....								
Pintail .....								Ap
Canvasback .....								
"Ducks" .....		Apr 8	Mar22	Apr 1	Apr12		Apr 4	
Hawk (Marsh?) .....	Mar19	Mar30	Mar21	Mar25	Mar26	Mar23	Mar28	Ma
Sparrow Hawk .....				Apr21	Apr18	Apr 5	Mar29	Ap
Sandhill Crane .....	Apr 1	Apr 9	Mar25	Apr 3	Apr11	Mar31	Apr 4	Ap
Sora .....							My 9	Ju
American Coot .....					June 7		My23	My
Killdeer .....	Apr11	Apr 7	Mar25	Apr 2	Apr17	Apr13	Apr 4	Ap
Am. Golden Plover .....								My
Black-b. Plover .....								My
Upland Plover .....					My10	My16	My 8	
Willet .....						My 1	Apr27	Ap
Marbled Godwit .....	My 4	My 2	My 1	Apr26	Apr29	My 1	My 1	My
Wilson's Phalarope .....								
Franklin's Gull .....	Apr27	Apr28	Apr25	Apr18	Apr29	Apr24	Apr23	Ap
Black Tern .....		My16	My16	My19	My21	My20	My21	
Mourning Dove .....				My26	My13-14	My12	My18	My
Burrowing Owl .....						My 8		
Common Nighthawk .....					June 6	My29	June 1	Ju
Yellow-sh. Flicker .....			Apr27	Apr25	Apr25	Apr16	Apr14	Ap
Yellow-b. Sapsucker .....				My 4				
Eastern Kingbird .....	My 1	My 19	My12	My18	My21	My20	My21	My
Western Kingbird .....								
Least Flycatcher .....			My13					
Olive-s. Flycatcher .....							My10	My
Horned Lark .....		Mar 5	Mar 2	Feb20	Mar 3	Feb11	Mar 7	Jan Feb
Tree Swallow .....			My13					Ju
Bank Swallow .....			My 9					
Barn Swallow .....		My17		My10	My 7	My 9	My 8	My



4	1925	1926 F. Ranson	1927 F. Ranson	1928	1929	1930	1931	1932 F. Ranson	1933	1934
10	My 9	My11	My 1	My 1	My11	My 7			My14	My 2
								My 6		
23				Apr 3						
29		My24	My27	My17		June 5				
18	Mar29	Apr30	Apr19	Apr26	Apr24	Apr18	Apr17		Apr18	Apr25
13 24 y)	Apr 5	Apr18	Apr 9	Apr 3	Apr12 Apr27 (Wavies)	Apr11 (Gray) Apr12 (Wavies)	Mar21 Apr13 (Wavies)	Apr 4	Apr14	Apr10 (Can.)
					Apr 4				Apr16	Apr 7
					Mar28				Mar30	Apr 3
					Apr19	My 5			Apr29	Apr15
3	Mar28	Mar20	Apr 6	Mar22		Apr 2	Mar23	Apr 4		
30	Mar24	Mar24	Mar29	Mar18	Mar17	Apr 1	wintered	Mar31	Mar19	Mar15
20	Apr12		Apr 8		Apr 1	Apr13	Apr16	Apr 6	Mar31	Feb29
12	Mar28	Apr 9	Apr 2	Apr13	Apr10	Apr 9	Mar24	Apr 4	Mar29	
2		My12	Apr29	My10	My19	My12			My26	
25	My 3	My11	My11	Apr29		My 9			Apr30	My16
7	Mar30	Apr11	Apr 2	Apr 1	Apr12	Apr 6	Apr 8	Apr 4	Mar30	Apr 7
					My10		My11	My13	My15	My 8
5	My12	My18	My16	My 9						
4	My13	My 7	My12	My12	My13	My10		My 7	My13	My18
25	Apr24	Apr20	Apr28	Apr26	Apr27	Apr17	Apr30	Apr24	Apr18	Apr26
28	My 1	Apr28	Apr28	My 8	Apr27	Apr28	Apr30	Apr28	Apr30	My 2
						My11			My14	
26	Apr15	Apr25	Apr17	Apr28	Apr20	Apr27	Apr17	Apr18	Apr18	Apr21
0	My21	My20	My20	My17	My13	My19		My21	My18	
1	My14	My17	My24	My22	Apr11	My11	My 2	My 8	My14	Apr27
	June 3	June 7	My25		My27	My26	My30	My13	My22	
6	Mar30		Apr18	Apr17	Apr16	Apr13	Apr18	Apr15	Apr15	Apr27
0	My 4				My19	My11			My14	
5	My14	My18	My19	My19	My21	My25	My17	My14	My16	My18
1	My22	June 7			My22					
1							My 4		My18	My18
1	Feb13	Feb26	Mar4	Feb11	Feb10	Feb19	wintered	wintered	Feb 9	Feb22
7	My19		My23	My19		My 5	My 1		My21	My 8
									My22	My15
5	My15	My 4	Apr29	My 7	Apr27	My 6	My15	My 6	Apr29	My 6



[illegible]



1924	1925	1926 F. Ranson	1927 F. Ranson	1928	1929	1930	1931	1932 F. Ranson	1933	1934
Mar26	Mar23	Mar20	Mar17	Mar17	Mar19	Mar17	Mar22	Mar31	Mar19	Mar21
My18										
					Apr19		My30		My 2	My 2
		My24	My27		My 3		My23		My30	
Mar14	Mar29	Apr11	Apr11	Apr16	Apr 4	Apr 2	Apr12	Apr 7	Apr15	Apr14
Apr 8					Apr14				Apr17	
						My 5				My 3
	My31									
Mar26			Apr27			Apr24			My 7	
							My27			
My22		My18	My24	My19	My19	My21	My20	My19	My21	
			My24		My18	My16	My 4			
						My27			My21	My18
Mar19	My13								Apr17	
June 1										
		June 9			My24					
Mar 6	Mar28	Mar30	Apr 2	Mar27	Apr 1	Apr 2	Mar27	Apr 6	Mar24	Apr 8
Mar 6	Apr20	My11	My 3				My17	My10		
Mar14	Mar29	Mar26	Apr 4	Mar30	Apr 4	Apr 7	Apr10		Apr16	Apr18
Mar28	My19	My19	My27	My19	My19	My26	My25	My12	My17	My17
								Apr 9	Apr18	My 4
		Apr14	Apr13		Apr10	Apr10	Apr10	Apr12	Apr18	Apr23
						My 5		My10	My 6	Apr25
Mar30					My19					
	Mar24	Mar14	Mar10	Mar25	Mar29				Feb 6	
	My26	My29	June 7			June 4	My23	My25	My30	My18
Mar31		My30						My27		
		My 9	Apr27		My 3	Apr27	Apr27	Apr16	Apr25	
Mar12	Mar29	Mar24	Apr 2	Mar28	Apr 5	Apr 3				Apr18
Mar 6	Mar29			Mar22	Mar27	Apr 3	Mar22		Mar31	Mar28
Mar 4	My13				My19	My10	My15	My 9	My 5	
Mar 4	My15			My10	My 5	My 7	My 4		My10	My 4
					Apr20	My26		My20		
Mar 9	Apr 5	Apr10		Mar27	Apr25		Mar29	Mar10		Mar 3
Mar23	Apr16		Apr24	My 1	My12	My 2	My 1		Mar31	Mar20



# Raptors Banded in 1964

by C. Stuart Houston, Saskatoon

The success of an owl bander depends not so much on his own efforts as the help he receives from others. I would like to express my appreciation to all those who located nests in 1964, and ask for even more support in the coming year. Most of the owl nests reported this year were in response to a request in Doug Gilroy's nature column, "Prairie Wildlife," in the *Western Producer*. (For information on my previous raptor banding operations see *Blue Jay*, 17:106, and 18:105-110.)

We travelled over 1,000 miles on the long weekend beginning Friday evening, May 15, accompanied by Bill Horseman. The first loop included stops at Dundurn, Allan, Ruthilda, Denholm, Ruddell and Leroy. We arrived in Yorkton just after midnight Saturday and left again at 3:30 a.m. Sunday with Larry Morgotch added to the crew. We visited owl nests at Gortitz, Springside, Theodore, Tuffnell, Tonkin, Rokeby and Saltcoats. I just had time to get over to Regina to catch the T.C.A. plane to Vancouver (necessitated by sudden illness in the family). Next morning, on her return to Saskatoon, Mary banded Great Horned Owls in four additional nests, with the help of her sister, Margaret, at Dilke, and Lawrence Beckie at Bladworth. A total of 53 Great Horned Owls had been banded that weekend in 26 nests; later we added 16 Great Horned Owls in nine other nests.

Nesting success was almost as good as in 1960. Of the 35 Great Horned Owl nests where young were banded, 10 raised three young, 17 raised two young and eight raised one young. Unfortunately, three young were taken from two nests before our final visit, so only 69 instead of the potential 72 birds were banded.

Of the nine nests visited on or after May 20, only one contained food (a young rabbit). Of 26 nests visited on the "long weekend," six contained no food, and two nests were not inspected closely. The remaining 18 nests contained a total of eight rats, five rabbits, five pocket gophers, three teal, two mallard, two pintail, two meadow mice (*Microtus*), one muskrat, one sora and one coot. Pocket gophers

seemed a less dominant food item than in 1960, and extra uneaten food supply in nests were less plentiful this year.

The Great Horned Owl nests varied in height from 14 to 45 feet above the ground, with an average of 27½ feet. I now carry three 10-foot sections of aluminum ladder on top of my car, and can get to almost any prairie owl nest even if I don't have Bill Horseman with me!

Larry Morgotch found five of the Great Horned Owl nests; Bill Horseman, four; J. R. Harcourt of Leroy, three; Jim Slimmon, two; Gwilym and Trevor Jones of Findlater, two; Marvin Schmidt, Frank Roy, Ed Falk, Jim Agar, W. J. Bruchs, Mrs. T. Turner and Fred Sage of Saskatoon each found one, as did Harry Parker of Allan, Marshall Evans of Ruddell, Murray M. Bilokreli of Theodore, Irving and Gordon Pearce of Tonkin, Dave Baines of Crescent Lake, Miss Mary MacNutt of Saltcoats, P. Lawrence Beckie of Bladworth, Lloyd and Kelvin Barry of Young, Wes Schmidt and Rollie Woods of Ruddell, and Fred Lawrence of Colonsay.

Long-eared Owls required our attention in June. Joe and Marvin Schmidt found three nests just west of Saskatoon. At the first nest on June 8, the adult female owl would not leave the nest, so received an aluminum band on her leg in exchange for a series of claw marks on the back of my right hand. Her five young were also banded. The most successful nest was the one found east of the city by Jim Slimmon, with six young banded on June 17. Brian Boechler of Allan located one nest and Marshall Evans of Ruddell found four nests on his farm. The season's total for Long-eared Owls was 28 young banded in eight nests.

Short-eared Owls were also plentiful in the Ruddell district, where a community effort was captained by Wes Schmidt and Marshall Evans, with help from Warren Ballsrud and Ernie Vogel. A number of the nests under observation were destroyed by farming operations or deserted, but young were banded in six nests. Jim and John Dempsey located another





Photo by Hans S. Dommasch

Bill Horseman nearing Great Horned Owl nest, Dundurn, May 15, 1964



nest at Young, making a total of 15 young banded in seven nests.

The banding of four young Golden Eagles in three nests on the South Saskatchewan cliffs brought my four-year total to 14, and was again one of the highlights of the year. One nest was located by Alfred Jones of Beechy during the Saskatchewan Natural History Society summer meeting on June 6. The next day, Stanley Peters flew Bob Taylor west to check on and confirm occupancy of a nest used in 1961. We banded the two young in this nest on the roundabout journey home, accompanied by Taylor, Nero and his sons, and the Chandlers. Another nest, followed by Dave Santy all spring, was washed down the cliff during a May storm; the second nest under his observation, which had two eggs on April 9, held only one eaglet on June 21.

I also banded four young Red-tailed Hawks in two nests; eight Swainson's Hawks in three nests; nine Marsh Hawks in three nests; eight Pigeon Hawks in two nests; four Sparrow Hawks and three Saw-whet Owls in single nests.

I hope to band another 60 or more Great Horned Owls in 1965, for I should eventually band over one thousand to obtain statistically significant results. They yield a good percentage of recoveries (36 from the first 303 banded, or 12%), including one from Minnesota, two from North Dakota, and six from Manitoba. I wish to learn

more about the wanderings of this "non-migratory" species.

Readers must be warned never to climb up to an owl's nest when they are alone or in poor light; in fact, it is best to study their habits from the ground! I know of three people, including one bander, who have lost the sight of one eye from the sharp talons of a Great Horned Owl. (And refer to *Blue Jay*, 18:18-19, 1960.)

Any school (or person) in Saskatchewan finding five active Great Horned Owl nests whose young I band, will receive a Peterson's *Field Guide to the Western Birds*, or other guide in this series. The best area for owl nests is the "parkland" area through North Battleford, Humboldt and Yorkton. I can likely visit all single nests in these areas, but would prefer three or more nests per district elsewhere in the province to make the trip worthwhile. Students finding single nests will receive a year's subscription to the *Blue Jay* when the young owls are banded.

Great Horned Owls begin nesting in late February or early March and I have known them to incubate eggs successfully in twenty-below-zero weather. The young owls are large enough to band by the second week in May, and often leave their nest about May 20. When a nest is located, please write to me at 863 University Drive, Saskatoon—before May 1 if possible. If necessary, phone collect to 244-0742.



Young Great Horned Owl and author. Nest located by Harry Parker, Allan, May 15, 1964.

Photo by Hans S. Dommasch



## Some 1964 Bird Records for the Saskatoon District

by J. B. Gollop, Saskatoon

The following is a list of the more interesting bird observations made during 1964 in the Saskatoon district. The area included is a circle of approximately 30-mile radius centering in the city—Townships 31 through 40, Ranges 1 through 10, West of the Third Meridian.

Three species were particularly abundant at one time or another during the year. Short-eared Owls (*Asio flammeus*) were unusually common throughout the district beginning in late December, 1963. Several nests were found. This compares with one observation of a single bird in 1962 (Gollop, Roy, and Folker, 1963). An article by C. S. Houston in this issue on banding raptors refers to the influx of Long-eared Owls (*Asio otus*). On August 20 a southeastward migration of nighthawks (*Chordeiles minor*) was observed from 2202 York Avenue, Saskatoon. The flight was in progress when first noted, but 322 birds were counted between 6:18 and 7:30 p.m., C.S.T. (Michael A. Gollop).

First records of successful, unsuccessful and apparent breeding were received for four species. Ferruginous Hawk (*Buteo regalis*): A nest with four eggs was found on May 13 near Bradwell. Both birds were in attendance on May 30. The nest was empty and long deserted when checked on June 27 (C. S. Houston, Harold Moldenhauer, Ed Falk, Bill Horseman). Saw-whet Owl (*Aegolius acadicus*): three young were found in a nest. Red Crossbill (*Loxia curvirostra*): This species was recorded in or near Saskatoon from December, 1963, to July. Twenty-one individuals were banded in February, March and April in Mrs. Gordon Shepherd's yard. After nearly daily visits of banded birds from mid-March, a banded male and an unbanded female appeared on May 31 at Miss Marie Gillespie's feeding tray with a young bird, just able to fly. Other young appeared there in July. There is no doubt that these birds bred in Saskatoon (Houston). Virginia Rail (*Rallus limicola*): James A. Slimmon found two instances of probable breeding. On June 27 he found a nest with

one egg believed to be this species two miles east of Saskatoon; no adults were seen. The nest was destroyed by July 2. On July 10 and 11 two Virginia Rails giving alarm notes followed Slimmon through part of the Hudson Bay Slough. This is the first July record in recent years for the district.

TV Tower kills: Prior to the 1964 southward migration, the largest kill recorded at CFQC-TV was 37 birds in 1963. From a migration that occurred during the night of August 21-22, 1964, 110 birds were picked up (M. A. Gollop and J. B. Gollop) and a migration on September 3-4 resulted in 191 dead birds (W. J. Maher, R. Busch, M. A. Gollop, J. B. Gollop). On nine more trips to October 10, a total of 37 birds was found. A separate article on these kills appears in this issue.

Three species were noted at unusual seasons: Hooded Merganser (*Lophodytes cucullatus*): two birds in female or immature plumage were studied on a slough north of the Saskatoon airport on June 28 (J. B. Gollop). Two Tree Sparrows (*Spizella arborea*) and one Harris' Sparrow (*Zonotrichia querula*) were recorded on January 4 in a sunflower patch southwest of the city (R. V. Folker, J. F. Roy).

The following are new records for the district, at least in recent years: Cinnamon Teal (*Anas cyanoptera*): one male was observed with 30X scope swimming and flying at Proctor Lake on May 17. Parasitic Jaeger (*Stercorarius parasiticus*): A single bird in light plumage was observed flying, sitting and standing for two periods totalling 22 minutes at Patience Lake on May 23. It came within 75 yards of two observers. At one point it chased and caught in its bill a small sandpiper; the "peep" escaped after the jaeger landed and attempted to transfer the bird from bill to feet. At the time, there were an estimated 17,000 shorebirds on Patience and Burke Lakes and a nearby slough (J. B. Gollop).

Partial albino birds were noted more frequently this year: Gadwall (*Anas strepera*): May 24 at Proctor Lake; one bird with overall pale buff plumage—



not too unusual among Gadwall (J. B. Gollop). Widgeon (*Mareca americana*): May 18 north of Floral; one with tinges of yellow and darker flecks; it was with a flock of four other widgeon (M. A. Gollop). Stilt Sandpiper (*Micropalama himantopus*): on May 24 at Proctor Lake; one individual in a flock had a dirty white head and neck. Brewer's Blackbird (*Euphagus cyanocephalus*): on May 8 near CFQC-TV tower; the female of a pair had one outer and one other tail feather pure white. There were three or four small spots of white on the bird's body. (J. B. Gollop.)

Other records: Horned Lark (*Eremophila alpestris*): A pair nested within the city limits in a newly planted lawn at 423 Quance Avenue. Three young were fledged. (J. F. Roy, R. V. Folker). Black-billed Magpie (*Pica pica*): a flock that centered its activities around a turkey farm just south of the city limits was checked almost weekly for four months. On August 1, there were at least 74 birds. The peak

number was 114+ on August 26. There were 93+ on September 8, 45+ on October 17, 42+ on November 7 and 22+ on November 22, the last date that a count was made before the road became blocked with snow. Most satisfactory counts were made as the birds flew about a mile south of the farm to roost after sunset (J. B. Gollop). Lark Bunting (*Calamospiza melanocorys*): Since the birds reported by Roy (1960), which omitted a male near Bradwell (June 11, 1960), our records are as follows: 1961: four birds, south of Aberdeen and west of Vonda (May 21); 1962: none; 1963: 13 birds, Burke Lake (May 25 and June 2), Proctor Lake and Dundurn (June 16), Laura and Delisle (July 20), Dundurn (September 2); 1964: 3 individuals, Floral (May 18) and Hanley (June 21).

#### LITERATURE CITED

- Gollop, J. B., J. F. Roy, and R. V. Folker. 1963. Some 1962 bird records for the Saskatoon district. *Blue Jay*, 21 (1): 12-13.  
 Roy, F. 1960. Birds of special interest in the Saskatoon area, Spring, 1960. *Blue Jay*, 18 (3): 117-118.

## May Day Count, Saskatoon Natural History Society

May 23, 1964: A species count within a circle centering on Saskatoon and having a radius of 25 miles. 5:00 a.m. to 8:30 p.m., CST. 20 observers in four parties. Temp. 70°, strong winds after 12 noon. Total, 129 species.

Of particular interest are the nesting record of the Ferruginous Hawk and the first Saskatoon record of the Parasitic Jaeger. The peak of the warbler migration occurred about a week prior to the count.

Common Loon, Red-necked Grebe, Horned Grebe, Eared Grebe, Western Grebe, Pied-billed Grebe, Great Blue Heron (nests with eggs), American Bittern, Canada Goose (pair with young at north end of Pike Lake), Mallard, Gadwall, Pintail, Green-winged Teal, Blue-winged Teal, American Widgeon, Shoveler, Redhead, Ring-necked Duck, Canvasback, Lesser Scaup, Common Goldeneye, Bufflehead, White-winged Scoter, Ruddy Duck, Sharp-shinned Hawk, Red-tailed Hawk, Swainson's Hawk, Ferruginous Hawk (nest with eggs), Marsh Hawk, Pigeon Hawk, Sparrow Hawk, Ruffed Grouse, Sharp-tailed Grouse, Ring-necked Pheasant, Gray Partridge, Sora, American Coot, Semipalmated Plover, Killdeer, Golden Plover, Black-bellied Plover, Common Snipe, Upland Plover, Spotted Sandpiper, Willet, Lesser Yellowlegs, Pectoral Sand-

piper, Baird's Sandpiper, Dowitcher (Long-billed?), Stilt Sandpiper, Semipalmated Sandpiper, Marbled Godwit, Sanderling, American Avocet, Wilson's Phalarope, Northern Phalarope, PARASITIC JAEGER (first Saskatoon record, B. Gollop), California Gull, Ring-billed Gull, Franklin's Gull, Common Tern, Black Tern, Rock Dove, Mourning Dove, Great Horned Owl, Burrowing Owl, Short-eared Owl, Belted Kingfisher, Yellow-shafted Flicker, Yellow-bellied Sapsucker, Downy Woodpecker, Eastern Kingbird, Western Kingbird, Eastern Phoebe, Least Flycatcher, Horned Lark, Tree Swallow, Bank Swallow, Barn Swallow, Cliff Swallow, Blue Jay, Black-billed Magpie, Common Crow, Black-capped Chickadee, House Wren, Long-billed Marsh Wren, Catbird, Brown Thrasher, Robin, Swainson's Thrush, Veery, Mountain Bluebird, Water Pipit, Sprague's Pipit, Loggerhead Shrike, Starling, Red-eyed Vireo, Philadelphia Vireo, Warbling Vireo, Tennessee Warbler, Yellow Warbler, Blackpoll Warbler, Ovenbird, Yellowthroat, American Redstart, House Sparrow, Bobolink, Western Meadowlark, Yellow-headed Blackbird, Red-winged Blackbird, Baltimore Oriole, Brewer's Blackbird, Common Grackle, Brown-headed Cowbird, Rose-breasted Grosbeak, Pine Siskin, American Goldfinch, Red Crossbill, Rufous-sided Towhee, Savannah Sparrow, Sharp-tailed Sparrow, Vesper Sparrow, Tree Sparrow (?), Chipping Sparrow, Clay-colored Sparrow, White-throated Sparrow, Song Sparrow, Lapland Longspur, Chestnut-collared Longspur. — **Frank Roy**, compiler.



# Bird Migration Collision Casualties at Saskatoon

by Michael A. Gollop, Saskatoon

Mass casualties of birds migrating at night in the spring and fall have been the subject of a number of articles in recent issues of the *Blue Jay* (17:142-143, 19:160-164, 20:151-152, 20:152). This is the first detailed report on birds colliding with radio and TV towers and power lines during migration at Saskatoon. This paper deals mainly with birds found during the 1964 southward migration season but also includes some data on spring and fall kills from 1961 to 1963.

Irregular checks for bird kills at most of the structures listed in Table 1 yielded the following results: 32 dead birds in 1961, 74 in 1962, 17 in 1963, and 420 in 1964. The dates that various structures were checked in 1964 and the numbers of birds found (in parentheses) is as follows:

CFQC-TV: May 4 (24), May 8 (1 Savannah Sparrow), August 13 (1 Blackpoll Warbler), August 23 (110), August 25 (1 Ovenbird), September 4 (192), September 6 (16), September 7 (9), September 8 (2), September 10 (2), September 13 (4), September 19 (4), September 26 (0), September 29 (1 LeConte's Sparrow, October 3, (1 Lapland Longspur), October 10 (0); CKOM: August 11 (1 Ruddy Duck), August 21 (0), September 5 (19); CFNS: September 5 (11); RCMP: September 5 (5); CFQC Radio: September 5 (1 Blackpoll Warbler); Hague Communication Relay Tower: May 9 1; Sandbar: August 12 (2), August 14 (3), August 15 (2), August 16, 17, 18, 20 (0), August 21 (1), August 22 (0), September 4 (2), October 4 (2), October 10 (3). (All the birds found

dead on a particular day did not necessarily die on one night.) The three largest 1964 kills occurred at the TV antenna: 24 birds were found on May 4, 110 on August 23, and 191 on September 4. Species found on these three dates and the totals for all years are shown in Table 2; species found at the Power Lines-Sandbar site are discussed later.

Our procedure was for one to four people to go around each tower beginning at the base of the farthest guy wires and making two or three complete circles before reaching the base of the tower. Depending on results we might then check beyond the guy wires. If this was done it almost always involved only the south and east sides of the tower. The farthest we ever found a bird from a structure was 750± feet; this was a Yellow Warbler which was found at the TV tower on September 6 after a night of high winds. The following people assisted in the project in 1964: Michael Gollop (on 24 dates and 25 hours), J. B. Gollop (18, 18), Robert Tomczak (5, 3.5), Dr. W. J. Maher (3, 3.5), Robert Busch (1, 2), W. A. Benson and R. Jakimchuk (1, 0.50 each). Common names of birds used in this paper follow the A.O.U. Check-list of North American Birds (1957). Identification was by the author based mainly on T. S. Roberts' "A Manual for the Identification of the Birds of Minnesota and Neighboring States" (U. Minn. Press, Minneapolis, 1955), with some assistance from Dr. C. S. Houston and J. B. Gollop.

It is worthwhile attempting to relate

Table 1 — Physical data on more important structures checked at Saskatoon, 1961-1964

Structure		Location (S-Twp-R-Mer)	Altitude of Base (feet above sea level)	Height of Structure (feet)	Total Length of Guy Wires (feet)
CFQC-TV	1 tower	SE 20-37-3 w3	1,975 ±	650	8,300
RCMP	1 tower	SE 5-37-3 w3	1,825 ±	300	1,570
CFNS	3 towers	NE 19-36-4 w3	1,670 ±	250	10,000
CKOM	4 towers	NE 9-36-4 w3	1,675 ±	1-350 3-150	3,800 3,200
Power Lines	29 wires	SE 18-36-6 w3	1,550 ± (River)	50-75	9,500 ±



Table 2 —Collision casualties recorded at Saskatoon, 1961-1964

Species	Totals For All Structures				TV Towers 1964			Aug. 12- Oct. 10 1964 All Structures	
	1961	1962	1963	1964	May 4	Aug. 23	Sept. 4	No. Birds	No. Dates
Western Grebe	1	—	—	—	—	—	—	—	—
Pied-billed Grebe	—	—	—	1	—	—	1	1	1
Green-winged Teal	1	—	—	—	—	—	—	—	—
Blue-winged Teal	—	—	—	1	—	—	1	1	1
Ruddy Duck	—	—	—	1	—	—	—	1	1
Sparrow Hawk	—	—	—	1	—	—	—	1	1
Sora	2	2	—	27	—	1	22**	27	3
American Coot	4	—	—	1	1	—	—	—	—
Common Snipe	—	—	—	1	—	—	—	1	1
Baird's Sandpiper	—	—	1	1	—	—	—	1	1
Semipalmated Sandpiper	—	—	—	1	—	—	—	1	1
Northern Phalarope	—	—	—	1	—	1	—	1	1
Rock Dove	—	—	1	—	—	—	—	—	—
Yellow-shafted Flicker	—	—	—	1	—	—	—	1	1
Yellow-bellied Flycatcher	—	1	—	—	—	—	—	—	—
Traill's Flycatcher	—	—	1	—	—	—	—	—	—
Unidentified Empidonax	—	—	1	26	—	19	4	26	4
House Wren	—	2	—	—	—	—	—	—	—
Long-billed Marsh Wren	—	—	—	1	—	—	1	1	1
Catbird	—	—	—	1	—	—	1	1	1
Swainson's Thrush	—	22	2	48	4	8**	31	44	6
Gray-cheeked Thrush	—	2	—	2	1	—	1	1	1
Veery	—	—	—	3	—	—	3	3	1
Unidentified Thrush	1	2	—	2	1*	1	—	1	1
Ruby-crowned Kinglet	1	—	—	—	—	—	—	—	—
Solitary Vireo	—	—	—	4	—	—	4	4	1
Red-eyed Vireo	—	11	—	67	—	8*	50	67	4
Black-and-white Warbler	—	2	—	9	1	6	1	8	3
Tennessee Warbler	—	—	1	12	—	3	4	12	6
Nashville Warbler	—	—	—	1	—	—	1	1	1
Orange-crowned Warbler	1	—	—	—	—	—	—	—	—
Yellow Warbler	—	1	—	20	—	13	5	20	3
Magnolia Warbler	1	—	—	5	—	3	2	5	2
Myrtle Warbler	2	—	—	2	—	—	—	2	1
Black-throated Green Warbler	—	—	—	1	—	1	—	1	1
Bay-breasted Warbler	—	—	—	2	—	—	1	2	2
Blackpoll Warbler	—	4	1	14	—	—	10	14	4
Palm Warbler	1	—	—	7	—	—	4	7	3
Ovenbird	1	5	2	33	—	12	16	33	6
Northern Waterthrush	—	7	1	23	7*	11	3	16	4
Connecticut Warbler	—	—	1	—	—	—	—	—	—
Mourning Warbler	—	1	—	11	—	7	1	11	4
Yellowthroat	1	—	—	3	—	—	—	3	3
Wilson's Warbler	2	3	2	11	—	7	—	11	4
Canada Warbler	—	—	—	1	—	1	—	1	1
American Redstart	—	1	—	8	—	5	2	8	3
Unidentified Warblers	3	4	—	10	—	1	6	10	4
Western Meadowlark	—	—	1	—	—	—	—	—	—
Baltimore Oriole	—	—	—	3	—	1*	2	3	2
Brewer's Blackbird	1	—	—	—	—	—	—	—	—
Savannah Sparrow	2	—	—	7	1	—	3	5	2
LeConte's Sparrow	—	—	—	2	—	—	—	2	2
Vesper Sparrow	1	—	1	—	—	—	—	—	—
Slate-colored Junco	1	—	—	—	—	—	—	—	—
Tree Sparrow	—	—	—	2	1*	—	—	1	1
White-throated Sparrow	1	1	—	6	2	—	2	4	2
Lincoln's Sparrow	—	1	—	16	—	—	7	16	5
Swamp Sparrow	—	—	—	5	—	—	1	5	4
Song Sparrow	—	1	—	—	—	—	—	—	—
Lapland Longspur	—	—	—	3	2	—	—	1	1
Snow Bunting	—	—	—	3	3***	—	—	—	—
Unidentified Sparrows	1	1	1	3	—	—	—	3	3
Unidentified Birds	3	—	—	6	—	1	1	5	4
TOTAL	32	74	17	420	24	110	191	394	26

\*Each asterisk represents a bird probably killed on a date different from the remainder of the column.



weather conditions to major collisions but this is not always possible because weather information is usually recorded some distance from the site of the kill; in the following cases 12 miles west of CFQC-TV. Overnight weather on August 20-21, the date on which 106 of the birds picked up on August 23 were killed, was as follows: the wind was NNW. at 6-8 m.p.h. from 10:00 p.m., C.S.T., until midnight, and N. at 10-13 m.p.h. until 4:00 a.m. The temperature dropped from 56°F to 54°F. There was 0.5 inches of rain between 6:00 p.m. and midnight, with an overcast ceiling dropping from 4,600 feet to 2,500 feet, then rising to 4,800 feet at one hour intervals beginning at 10:00 p.m. Between midnight and 4:00 a.m. there was one two-minute shower with broken layers of clouds at 5,000 feet and 10,000 feet. On September 3-4, when at least 190 birds were killed, the wind was NW from 12 to 17 m.p.h. between 10:00 p.m. and 4:00 a.m. The temperature was 51°F. from 10:00 p.m. until 2:00 a.m. and then it dropped to 45°F. Cloud cover gradually increased from 0.8 at 10:00 p.m. to overcast at 1:00 a.m.; an hour later it was still overcast but by 3:00 a.m. it was only 0.1. Cloud altitude varied from 7,000 to 8,000 feet. There was no precipitation.

Near the south side of the city, a series of power lines crossed a large sandbar where it was  $110 \pm$  yards wide and attached to the east bank of the South Saskatchewan River. The Power Lines-Sandbar site presents an unusual picture and has been treated separately. It is our impression that birds found dead in this situation may reflect more accurately than the tower kills the migration pattern for the region. Inasmuch as the 29 wires are from 50 to 75 feet above the river, and since kills generally occurred under clear skies and almost completely unlikely conditions, it seems that birds must be attracted by reflections of light off the river and thus are flying low enough to be in danger from these wires. It is of interest to note that the dates on which birds were killed at this site generally represent a time of low ebb at the TV tower, e.g., October 10, TV—0, Sandbar—3, and vice versa, e.g., August 23 at TV—110, August 21 at Sandbar—1. Following are the records of kills at the Power Lines-Sandbar site: Baird's Sandpiper, August 14, 1;

Semipalmated Sandpiper, August 15, 1; Common Snipe, August 15, 1; Empidonax Flycatcher, August 12, 1; Swainson's Thrush, October 4, 1; Mourning (?) Warbler, August 12, 1; Wilson's Warbler, August 14, 1; Yellowthroat, September 4, 1; American Redstart, August 21, 1; Savannah Sparrow, October 10, 2; Tree Sparrow, October 4, 1; Lincoln's Sparrow, September 4, 1 and October 10, 1; unidentified bird, August 14, 1 (total—15 birds of 12 species).

Collision mortalities help to form an idea of bird movements and species composition. In addition, the time spent in checking kill sites may provide an opportunity to record live birds, e.g., we compiled a list of 67 species of birds while checking the Sandbar site, and 53 species over the past four years while checking the other sites. Observations of other animals may also result from such studies. For example, we found a Red Bat on September 19, 1964, at the TV tower, and on August 15, 1964, we photographed fresh tracks of a moose at the Sandbar site. Although our methods of checking for collision mortalities may be inefficient we feel that the time spent is worthwhile in view of the resulting information. In the future we hope to refine our techniques and thus obtain more information about this little known field.

#### Acknowledgements:

The author appreciates the assistance of Dr. R. W. Nero in writing this paper and of J. B. Gollop in compiling the data. The Meteorological Office, Department of Transport, Saskatoon, kindly supplied weather information. Most technical data on towers was supplied by RCA Victor of Montreal, Ajax Engineers Ltd. of Toronto, Station CFNS and the RCMP.

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### PIGEON HAWK ARTICLE

We wish to point out that the article on the Pigeon Hawk by Glen A. Fox (*Blue Jay*, 22:140-147) was mistitled by us. *Falco columbaris richardsonii* is not the most western race; *F. c. bendirei* breeds from northwestern Alaska, south to California and Idaho, and east to northern Saskatchewan. *Richardsonii*, the race in question, often called Richardson's Merlin, is primarily an arid plains form.—Ed.



# Regina and Lumsden TV Tower Bird Mortalities, 1964

by **Fred W. Lahrman**, Saskatchewan Museum of Natural History, Regina

Between August 20 and September 4, 1964, six visits were paid to the TV towers at Regina and two visits to the TV tower at Lumsden. On two of these occasions (August 21, September 4), mass kills were noted at both locations. The results of the visits are recorded below.

**August 20**—Checked Regina CKCK TV tower; found seven birds only—Starling (2), Red-eyed Vireo (1), Yellow Warbler (2), Red-winged Blackbird (1), Common Grackle (1).

**August 21**—On the drizzling wet morning of August 21, I went first to the Regina CKCK TV tower to check for birds which might have collided with the tower and the guy wires. As soon as I arrived, I noticed a number of dead birds lying on the pavement of the driveway and parking lot. Hastily picking these up as a number had already been crushed by traffic, I soon had 30 birds collected. Then a call to the Museum brought H. Beck, R. Carson and A. Swanston out to help and together we collected 127 birds at the CKCK tower, 36 birds at the CHRE tower (approximately two miles north of the CKCK tower), and 34 birds at the Lumsden tower. Table 1 shows the species recovered on August 21.

Table 1—Birds recovered at TV towers at Regina and Lumsden, August 21, 1964.

Species	CKCK	CHRE	Lumsden	Total
Sora	1	1	2	4
Yellow Rail	—	—	1	1
Eastern Kingbird	—	1	—	1
Traill's Flycatcher	10	4	1	15
Least Flycatcher	2	—	1	3
Swainson's Thrush	1	—	1	2
Red-eyed Vireo	14	12	7	33
Philadelphia Vireo	1	—	—	1
Black-and-white Warbler	3	2	1	6
Tennessee Warbler	4	—	2	6
Yellow Warbler	36	6	6	48
Ovenbird	2	—	—	2
Northern Waterthrush	6	4	2	12
Mourning Warbler	17	1	7	25
Wilson's Warbler	12	3	1	16
Canada Warbler	8	1	1	10
Red-winged Blackbird	—	—	1	1
Baltimore Oriole	8	1	—	9
Clay-colored Sparrow	2	—	—	2
Total	127	36	34	197

The Regina weather office reported that during the night of August 20-21 when the kill apparently took place, a low pressure area was moving out. The temperature held steady from 57° to 59° and the wind was northerly at 8 m.p.h. There was a light drizzling rain during the night and a low cloud ceiling which varied from 500 feet to below 400 feet, so that 200 feet of the tower was in this cloud layer.

**August 22**—Between 11:00 p.m. and midnight, August 21, I visited the CKCK tower and found two recently killed Yellow Warblers lying on the parking lot. I could hear an almost continuous stream of warblers chirping as they passed overhead in the darkness, and possibly some were circling because of the attraction of the lights. There was no indication of any more birds being killed, but on the following day (August 22) I found the following—Sora (1), Traill's Flycatcher (2), Yellow Warbler (4), Wilson's Warbler (1).

**August 24**—Checked Regina CKCK TV tower. Found Yellow Warbler (1), Northern Waterthrush (1), Wilson's Warbler (2), Clay-colored Sparrow (1).

**August 29**—Checked Regina CKCK TV tower. Found Yellow Warbler (1), Palm Warbler (1).

**September 4**—On arrival at the CKCK TV tower on the bright sunny morning of September 4 I could see no evidence of any birds having been killed as there were none lying dead on the parking lot. On rounding the corner of the building I was surprised to see a great number of dead birds which had been gathered into a pile. Then I saw Dave Siggelkow picking up some more. I had met Mr. Siggelkow once previously when checking the tower for birds while he was working there and told him about the kill which had taken place on August 21. He is very interested because his business is building towers and he had no idea that they cause such mortalities. He said that when he had arrived the parking lot was littered with dead birds and that he had gath-



ered them up so they would not be damaged by the traffic. Beck, Carson and I gathered many more in the surrounding grassy areas and stubble fields. The majority of the birds were found south and east of the tower. A total of 216 birds of 28 species was found at the CKCK tower and 77 birds of 18 species at the CHRE tower. A considerable number of injured birds were flushed from the ground. Most of these were able to fly away. Among these were noted a Catbird, Red-eyed Vireos, Northern Waterthrushes, Ovenbirds, Swamp Sparrows, and other warblers and sparrows. The Lumsden tower was also checked but no birds were found there. Table 2 shows the species recovered on September 4.

The Regina weather office reported that during the night when the kill took place the temperature held at 50°, the wind was NW at 20 m.p.h., barometric pressure steady at 951.8. There was a cloud layer at 4,000 feet, and a complete cloud layer at 8,000 feet all night. No rain fell.

Table 2—Birds recovered at TV towers at Regina, September 4, 1964.

Species	CKCK	CHRE	Total
Virginia Rail	1	—	1
Sora	1	1	2
Traill's Flycatcher	2	—	2
Barn Swallow	—	1	1
Swainson's Thrush	1	6	7
Gray-cheeked Thrush	—	1	1
Solitary Vireo	1	—	1
Red-eyed Vireo	30	9	39
Philadelphia Vireo	2	1	3
Warbling Vireo	1	1	2
Black-and-white Warbler	3	1	4
Tennessee Warbler	32	6	38
Yellow Warbler	39	12	51
Magnolia Warbler	1	—	1
Bay-breasted Warbler	1	1	2
Blackpoll Warbler	6	6	12
Palm Warbler	1	—	1
Ovenbird	38	15	53
Northern Waterthrush	7	6	13
Mourning Warbler	14	5	19
Yellowthroat	5	—	5
Wilson's Warbler	3	2	5
Canada Warbler	3	—	3
American Redstart	2	—	2
Red-winged Blackbird	1	—	1
Baltimore Oriole	2	—	2
Savannah Sparrow	1	—	1
Sharp-tailed Sparrow	1	—	1
Clay-colored Sparrow	3	—	3
White-throated Sparrow	—	1	1
Lincoln's Sparrow	14	2	16
Total	216	77	293

# Eared Grebe Colony at Regina, 1964

by Fred W. Lahrman, Saskatchewan Museum of Natural History, Regina

For four years we have been watching an Eared Grebe colony grow in numbers at the Regina Waterfowl Park. In 1961, 48 nests were counted (*Blue Jay*, 19:170-171); in 1962 the colony had a total of 165 nests (*Blue Jay*, 20:158); and in 1963 a total of 179 (*Blue Jay*, 22:17). In 1964, the highest count of Eared Grebe nests ever made in the Regina Waterfowl Park was recorded—a count of 300.

The first Eared Grebe arrived at the Regina Waterfowl Park April 21, 1964, with an influx of Lesser Scaup, being recorded on that date along with one Horned Grebe and one Pied-billed Grebe, by Margaret Belcher. By May 2, the grebes were established in numbers at the Waterfowl Park. On May 27 Dot and Doug Wade counted 32 nests scattered in small groups where water plants were available in the area south of the city power house, and on May 30 they counted 122 nests. Strong winds on June 4 washed away some of the nests, but when the Wades checked the colony on June 6 they found active re-building and counted 76 nests east of the power house, with others under construction east of the Broad Street bridge. When I made

my count on July 2, there was an impressive total of 300 nests. The heavy rain of July 3 destroyed almost all these nests and there was little re-nesting after. However, many grebes had already hatched and the storm did not harm these young birds.

## PRAIRIE NEST RECORDS SCHEME

You are invited to keep nest records for the 1965 season and to submit them to the Prairie Nest Records Scheme. All records should be submitted on nest record cards which can be obtained from the Chairman, Robert Taylor. Those who contributed records in 1964 will receive cards automatically; but all new contributors should write for cards and further instructions about keeping records. Write:

ROBERT R. TAYLOR,  
Chairman, Prairie Nest Records Scheme,  
Box 1121,  
Regina, Sask.



# Mockingbirds at Oak Lake, Manitoba

by **David Hatch**, Oak Lake

In Frank Brazier's article on the "Status of the Mockingbird in the Northern Great Plains" *Blue Jay*, 22: 63-75), the Manitoba records cited include a Mockingbird seen December 26, 1962, at Oak Lake. This was a bird that spent the first part of the winter of 1962-1963 at Oak Lake. I first saw it on November 17, 1962, in the house yard on the farm of my parents, Mr. and Mrs. Lloyd M. Hatch. This was the first one I had ever seen and was the first Oak Lake record. Besides having all the typical Mockingbird characteristics, it occasionally cocked its tail as the Catbirds sometimes do. As it frequently flew only three feet off the ground from one tree to another, I set up my Japanese mist net next to a lilac bush and after three hours I finally caught it and banded it. Despite the late date, the Mockingbird was in excellent condition.

This Mockingbird was seen daily at the Hatch residence until November 23, 1962, when it flew the half mile across open prairie to the farm yard of Mr. Herman Battersby. For the next few days, it moved back and forth between the two farms. After November 27, it was rarely seen at the Hatch farm and was never seen there after December 31, 1962. It found more shelter at the Battersby farm grove and as the winter grew more and more severe it never left the shelterbelt.

On the Hatch farm, the Mockingbird spent the nights in a pile of straw bales. It ate the berries off all the honeysuckle bushes and also ate white bread crumbs and raisins that we put out for it. At Mr. Battersby's, it occasionally ate dried apples, but most of its food was mountain ash berries. It jealously guarded the mountain ash tree and was so aggressive in protecting it that it was able to keep an entire flock of Bohemian Waxwings out of the tree.

I never heard the Mockingbird make any noise, but one day, December 14, Mr. Battersby heard it call a few times. He described the sound as a sort of "chirp like a thrush makes."

While at Mr. Battersby's, the Mockingbird slept each night on a broken

branch just a few inches above the snow level at the south end of a row of lilacs. During the daytime, it spent a great deal of its time sitting on this branch. It was last seen alive on January 14, 1963. When Mr. Battersby noticed that it was not around the buildings on January 15 it was not hard for him to find it; it was dead on the snow just under the branch on which it spent so much time. A severe cold spell coupled with strong winds had probably been the cause of its death.

The Mockingbird was seen daily from November 17, 1962, to January 14, 1963. This is a very interesting record, not only because it was the first Oak Lake record of the Mockingbird, but because the bird attempted to remain in the area for the winter.

Oak Lake was not again visited by a Mockingbird until September 6, 1964. On this date a single Mockingbird was observed by both Mr. Battersby and myself. It appeared to be in the midst of a heavy moult; the feathers over all its body were worn and quill feathers could be distinguished at close range through 7x50 binoculars. It looked as if it was regrowing its entire tail and was very shabby in appearance.

The following day, September 7, 1964, Mr. Battersby had the good fortune to see six Mockingbirds at one time in the same place as the mocker was seen the previous day. One of the six was probably the one seen September 6 as its feathers were in rough condition. The other five Mockingbirds were sleek and well-feathered. They were also grey-brown on the back instead of pale grey as in the moulting bird. This is the largest group of Mockingbirds ever seen in Manitoba; it suggests that they may have nested in the area. Later, on September 20, I saw a group of three. These birds were two miles southeast of where the six were seen on September 7 and were in some willows along a country road. They were only seen one day and were the last ones noted in the Oak Lake area in 1964.



# Breeding Success of the White Pelican in Two Colonies in Manitoba in 1964

by **Harold Hosford**, Charleswood, Manitoba

The object of this report is to record a series of observations made chiefly in 1964 at two nesting colonies of White Pelicans (*Pelecanus erythrorhynchos*) found on East Shoal Lake, Manitoba (Latitude 50° 20'N and Longitude 97°30'W). For the purposes of this study the term "breeding success" is defined as the total number of live young found in each colony on the final date of observation, expressed as a percentage of the total number of young and eggs found in the colony on the first date of observation. Note that these figures do not represent the true success of the colony, for eggs would be laid after the first count and not all the young found on the final count could be expected to survive.

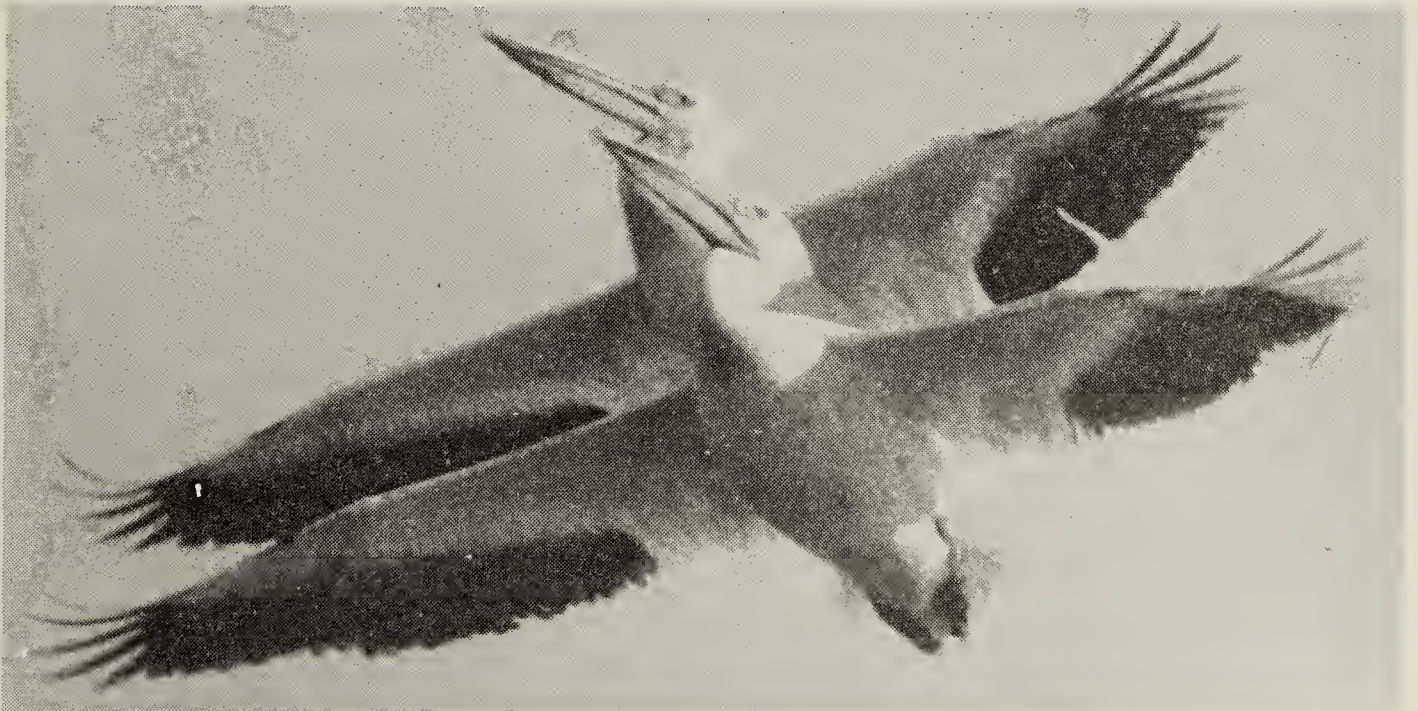
## History

East Shoal Lake is a typical prairie lake, shallow, semi-alkaline and subject to considerable annual fluctuation in level. The level is controlled by annual precipitation and evaporation, there being no major drainage into or out of the lake. During periods of heavy precipitation there may be a sudden, and sometimes dramatic, rise in water level. If this coincides with the nesting season, severe losses to marsh and ground nesting birds result. In dry years, the lower water level will

often leave island colonies high and dry.

I first visited the area in June, 1962, when the water level was low as a result of the drought the previous year. At that time the pelican colony was situated at the tip of a long rocky spit which extended about half a mile into the lake. It was obvious from the appearance of the surrounding terrain that the tip of the spit would have been an island in years of higher water level. I estimated that there were then 300 pairs of nesting White Pelicans.

Late in May the next year (1963), the colony was observed through eight power binoculars from a point about two miles away. A continuous flow of birds was observed moving about the colony and it appeared to be thriving. During the next four weeks the area was subjected to severe storms and heavy rains. When the colony was visited later in June it was found completely inundated by the rising water which resulted from these heavy rains. Apparently no young were raised that year. The last half of 1963, the winter of 1963-1964, and the spring of 1964 was a period of below-normal precipitation in the area and hence the water levels were considerably below those of June, 1963. On June 1, 1964,



White Pelicans

Photo by Fred W. Lahrman





White Pelican colony at Quill Lake, Saskatchewan

Photo by F. G. Bard

I visited the area with Dr. R. D. Bird and Mr. H. Copland, to observe the changes which had taken place since the previous spring. We found that there were two colonies, both on islands situated a short distance from the shore and about half a mile apart. To simplify records, these two colonies are hereafter designated Colony A and Colony B with pertinent notes concerning each under these headings.

#### Colony A

Colony A used an island, about five acres in area, apparently newly formed in 1963 by the rising water. As a result of the uneven nature of this island there were pockets of vegetation which separated the nesting groups of pelicans. This vegetation included a few scattered clumps of Balsam Poplar (*Populus balsamifera*) about 10 feet in height, clumps of willow (*Salix* spp ?), bluegrass — the dominant groundcover over much of the island, and a few patches of phragmites and sweet clover.

On June 1 this colony consisted of 212 White Pelican nests, and 39 Herring Gull (*Larus argentatus*) nests. Of the White Pelican nests, 205 contained eggs and seven contained newly-hatched young. Clutch size ranged from one to four eggs with two eggs being the most common. The pelican

nests were dispersed in groups over the island. The largest of these groups contained 69 nests and was located near the central, high part of the island. The remaining clusters of nests were scattered, apparently on the highest point available. In at least two cases these groups of nests were situated under Balsam Poplars. The Herring Gull nests were generally located on the perimeters of the groups of pelican nests, e.g., in one instance seven gull nests ringed a group of 11 pelican nests.

When I visited this colony on June 7 to band the young gulls I found a marked drop in the number of pelicans. Time did not permit a precise count but empty pelican nests were noted as well as punctured eggs. On June 27 I returned with Mr. Copland, Gordon Smith, and Warren Johnston to complete banding the young gulls and to band the young pelicans. We found only 22 young White Pelicans. Based on a total of 410 eggs and young present on June 1, these 22 young represent a breeding success of approximately 5 per cent.

#### Colony B

Colony B used a gravel island about half an acre in area, believed to be the remnant of the spit used by the



original colony in 1962. Bluegrass was the principal vegetative cover with some phragmites and sweet clover. On June 7, 1964, Dr. R. D. Bird, Dr. L. B. Smith, and Mr. John Jack made a survey of this colony and Dr. Smith subsequently reported their findings to me. Seventy-four White Pelican nests were found in two distinct groups separated by about 30 feet of unoccupied ground. The larger of these groups contained 62 nests and the smaller 12. There were also 22 Herring Gull nests on this island. The pelican nests contained 54 newly hatched young and 49 eggs. On June 15, I visited this colony to band the young gulls but made no count of the young pelicans. The colony was visited for the last time on June 27, when Herb Copland, Gordon Smith, Warren Johnston, and I returned to complete banding the young birds. The final count of young pelicans was 70. Based on 103 young and eggs present on June 7, these 70 young represent a breeding success of 67.9 per cent.

#### Discussion

The results of these observations raise the question: Why was there

such a difference in success between two apparently similar colonies? The actual cause of the losses could not be determined with certainty but the presence of many punctured eggs near the pelican nests suggests that much of the blame could be attributed to the Herring Gulls. Aside from this, no other evidence of predation was noted. While both colonies were similar in that they were subjected to the same external pressures, i.e., the presence of highly predatory Herring Gulls and the disturbances caused by the frequent visits of man, they differed in ways which may have had a significant bearing on their breeding success.

First, Colony B was a closely knit group, apparently nesting on familiar ground (part of the original island). The colony site was completely exposed with unobstructed passage in all directions which permitted easy movement to and from the nests. This would reduce the time when the nests would be left unprotected in periods when the colony was being disturbed. This situation contrasts greatly with the uneven character of the island



White Pelican nest

Photo by Hans S. Dommasch



occupied by Colony A. Here the small groups of nesting birds were actually isolated by intervening areas of rank vegetation. The isolated nature of these groups might have permitted heavier predation by the gulls.

The fact that at least two of the groups of pelican nests were situated among small trees may also have been significant. It would be impossible for pelicans to land or take off in the immediate area of these nests; rather, they would have to land or take off in the open several yards away from the nests and walk the remaining distance. This must certainly have caused considerable confusion at times, which would permit additional attacks by the gulls. Another possibility is a disturbance to a newly organized colony (Colony A), such as my first visit created, which might have upset the birds to the point where many deserted their nests.

Probably none of the above noted possibilities alone, caused the destruction of Colony A, but a combination of any two, or all of them, could have brought about this result. I submit these as possible explanations of the difference in success of these two colonies.

Editor's Note: The White Pelican is a species which bears close watch in these days of increased pressure on

the out-of-doors. Studies such as those made by Harold Hosford, the Editor of the Newsletter of the Natural History Society of Manitoba, are useful in determining the status of the species and its subtle response to environment. The population of the White Pelican in Canada is not large enough to be taken for granted: an estimate of the number of breeding adults made in 1963 by Michael F. Lies, who is working with Dr. William Behle of the University of Utah on the status of the White Pelican, places the number of breeding adults in Canada at 2,075. Concern over the fact that the nesting grounds are being increasingly molested led to a resolution at the Annual Meeting of the Saskatchewan Natural History Society, October 17, 1964, asking for legislative protection. The Society has subsequently learned from the Minister of Natural Resources, the Honourable J. M. Cuelen-aere, that the pelican is not now an unprotected species. The Saskatchewan Game Act was revised in 1963 and that revision includes both pelicans and cormorants in the definition of "game bird" (Section 2, subsection 5). Both pelicans and cormorants are, therefore, completely protected unless a hunting season is declared on them. The Minister has assured the Society that his department has no intention of taking such action in the foreseeable future.



White Pelicans at Greenwater

Photo by Doug Gilroy, Regina



## VARIED THRUSH REPORTED NEAR WOLSELEY

by **Don Hayward**, Wolseley

Since reading in the last issue of the *Blue Jay* of the sighting of a Varied Thrush in Regina, I thought I should report seeing one in the Qu'Appelle Valley last May 24 (1964). I was alone in the valley northeast of Wolseley checking my cattle but was equipped with my binoculars and *Field guide to western birds*. I was attracted to this bird by its song which I knew immediately was new to me. Working my way closer to where the notes came from I had a real surprise when this thrush appeared. I quickly opened my guide and had a good look, and then looked back at the bird. I came away thrilled and with no doubt in my mind that I had seen a Varied Thrush. I only regret being alone at the time. A hike in the valley is always a rewarding experience.

## UNUSUAL FEEDING BEHAVIOUR OF YELLOWLEGS

by **Sig O. Jordheim**, White Bear

During late August or possibly early September of 1963, I was quite surprised to see a flock of Greater Yellowlegs washing their food before eating it. While hauling water from a dam, I noticed seven Greater Yellowlegs chasing and picking insects on the grade side of the dam, then running to the water's edge and dipping their bills in several times. As I had my binoculars along I soon had a close up view and sure enough the yellowlegs were catching crickets, and not once did I see one swallowed before being dunked from one to seven times, usually three or four times. This happened in every case even though some of the crickets were caught as much as 20 feet from the water's edge. I am quite positive the birds were the Greater Yellowlegs and the crickets were our ordinary black field crickets. The top of the grade had numerous cracks from the dry weather, and there were rocks, sticks, and small willows between this area and the water level, so crickets were quite abundant there. There were no sloughs in our area that year, and all dams and dug-outs were low, so the yellowlegs may have been pressed for food.

## MARSH HAWK PREYS ON COTTONTAILS

by **Spencer G. Sealy**, Edmonton

While reading the report by J. B. Millar (*Blue Jay*, 22:148) which records the attempt of an adult female Marsh Hawk (*Circus cyaneus*) (not *hudsonius*, as given by Millar) to drag the carcass of a coot, probably at least equal to its own weight, a record I have of the Marsh Hawk apparently taking heavy prey immediately came to my mind. During a study of Marsh Hawk reproductive biology in the Brooks area of southeastern Alberta, May through July, 1964, data on prey fed to the young were recorded. In one nest, situated in a cattail marsh with about 15 inches of water, four young were raised whose food during their 35-day development period as nestlings was comprised of 14.29 per cent Nuttall's Cottontail (*Sylvilagus nuttallii*). The hind feet and heads of 10 rabbits were collected and measured (average, H.F.—92.5 mm., Ear—60.0 mm.). I checked their measurements with specimens in the University of Alberta Department of Zoology mammal collection and found them comparable to those of nine adult specimens whose average weight was 984.0 grams.

It is interesting to note here that as the Marsh Hawk's nest was approximately 40 feet out in the marsh, it would be necessary for this prey to be carried above the cattails to the nest, for dragging them was seemingly impossible. Perhaps the rabbits were partly eaten when captured and then the lighter remains carried to the young, for I never found a complete carcass in the nest, usually just the feet, head, and vertebral column.

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## 1965 SUMMER MEETING

Don't forget the SNHS Summer Meeting which will be held this year at attractive Candle Lake. The dates are June 11, 12, 13 (Friday evening through to Sunday). The responsibility for arrangements and programme has been assumed by the Prince Albert Natural History Society, and since they have been making plans for several months, we know we shall have a good meeting.



# Lark Sparrow Breeding at Nipawin

by **Maurice G. Street**, Nipawin

Little has been written regarding the distribution of the Lark Sparrow, *Chondestes grammacus*, in Saskatchewan. It is listed as an "uncommon summer resident" in the Cypress Hills (Godfrey, 1950) and as an "occasional summer resident" at Regina (Belcher, 1961), with several breeding records for each area. It is locally fairly common in the brushy coulees of the South Saskatchewan River, north of Swift Current, but rare elsewhere in the Elbow region (Roy, 1964). A colony of six Lark Sparrows was noted ten miles southeast of Saskatoon during the May Day Count of May, 1958 (Roy, 1958). The furthest north occurrence is for Prince Albert, where O. C. Furniss noted two birds on June 1, 1939, and a single bird, June 1, 1940 (Houston and Street, 1959).

A recent inquiry directed to the Prairie Nest Records Scheme has produced further interesting information. A site west of Gibbs along Last Mountain Lake has had a Lark Sparrow nest in 1961, 1963 and 1964. Most striking is a record for June 20, 1960, of a nest five miles south of Battleford, reported by Spencer Sealy. In Manitoba there are recent nest record cards from Oak Lake (July 12, 1960) and Charleswood (May 22, 1961). These scattered records to the east and north are unusual, and I have always regarded the Lark Sparrow as

a bird only likely to be found nesting in the more southerly regions of the province, and, at best, only a straggler in the more northern areas. It came, then, as a great surprise to flush a Lark Sparrow accidentally from an almost completed nest about one mile from the Nipawin town limits (near the eastern boundary of SW 3-51-14 w2). This area consists mainly of pure stands of jack pine, up to 50 feet high, interspersed with widely separated narrow strips of badly over-grazed pastureland. The soil is very light and sandy, and is sown mainly to brome and alfalfa. This nest was not too well concealed, at the base of a chopped-off alder shrub. Unfortunately, the nest was apparently immediately abandoned, despite not being touched in any manner, nor even approached again, for nearly a week.

The following day, June 13, 1964, I again visited this general area, to find still another pair of Lark Sparrows, some 100 yards distant from the first pair, feeding at least three young. These fledglings were high up in the branches of the jack pines, and from time to time flew, in a fluttering manner, from tree to tree, where they were fed by the parents. The food appeared to consist mainly of a small brown moth that abounded in the open field nearby.

Late in the evening of June 16, a half a mile west of the first two pair, a male Lark Sparrow sang intermittently for over 30 minutes from the tip of a 50 foot jack pine. The following day two Lark Sparrows were observed in a small nearby field. These were evidently a breeding pair. On the afternoon of June 24, Dr. S. D. Riome and the writer managed to locate this latter pair and succeeded in finding the nest, which contained two eggs and one young. Two days later, kodachromes were taken of the nest which contained one egg and two young. This nest was located some 75 feet from the edge of the jack pine woods, at the base of a clump of withered alfalfa. The field here was extremely dry and parched. The nest itself was marvellously constructed, almost entirely of baler twine, a num-



Conversion from kodachrome by M. G. Street  
Nest of Lark Sparrow, June 26, 1964



ber of short lengths, and one of over 42 inches.

On July 3, Dr. Riome noted a pair of Lark Sparrows on the north side of the Saskatchewan River, on the NW 30-50-14 w2, across the river opposite the Nipawin Union Hospital. This pair showed much agitation and after a short period of observation we flushed a fledgling, barely able to fly, from shrubbery near an old abandoned farm site. A small pasture field close by had been ploughed only a day or two before. This had likely been the nesting area. Two young were noted here the following evening.

This brings the Nipawin species list to 242, and increases the number of breeding species to 143. (The Osprey is the other breeding species added since publication of *Birds of the Saskatchewan River* in 1959.)

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### APPARENT NESTING OF BONAPARTE'S GULL

Mr. Beverly J. Rose, biologist with the Wildlife Management Institute, Bismarck, North Dakota, reports seeing two Bonaparte's Gulls which behaved as a breeding pair, near Highway 35, west of Greenwater Provincial Park. This was on June 24, 1964, about one-half mile south of the McKague turnoff. A bird in bright plumage, assumed to be the male, was sitting on the roadbank, while the female was swimming nearby in a small pond bordered by cattails and near a wood. Mr. Rose studied the pair for several minutes and was able to take some color photographs. The Bonaparte's Gull has been reported nesting in only a few localities south of the boreal forest, hence this observation is worth noting. Ronald and Donald Hooper found it an occasional summer resi-

dent at Piwei Lakes, 40 miles to the southeast (1954. A preliminary list of the birds of the Somme district, Saskatchewan. Cont. No. 3, Yorkton Nat. Hist. Soc., 13 pp., mimeo), and some were identified by members of the Society at the Field Meeting at Greenwater Lake, June 17-19, 1960 (*Blue Jay*, 18:148). Maurice Street considers this species a rare summer resident at Nipawin (Houston and Street, 1959. The birds of the Saskatchewan River, Carlton to Cumberland. Spec. Pub. No. 2, S.N.H.S.). It has also been found nesting north of North Battleford at "Lamotte's Swamp" (*Blue Jay*, 14:80).—Ed.

### LARK BUNTING INFORMATION WANTED

In spite of what we said in the *Newsletter* (No. 8), a Tisdale record of the Lark Bunting as reported in *Blue Jay* "Chatter" (Sept., 1964) has been located. Gary Anweiler and Ralph D. Carson recorded a male Lark Bunting eight miles north of Tisdale on May 20, 1964. We are anxious to document the recent widespread occurrence of this arid plains bird and would welcome additional reports of its occurrence for any year. Our recent pleas have brought several letters; of special interest are reports from Dewberry, Alberta (60 miles northwest of Lloydminster), and Kinloch (22 miles northeast of Kelvington). It should be pointed out that this species has been recorded in the past as far north as Nipawin and Torch River, but we are especially interested in breeding records for the past few years. We hope to prepare a full report at a later time.

—Ed.

### CORRECTIONS

#### CO-OPERATIVE SPRING MIGRATION STUDY, 1964

Several incorrect dates were given for Regina because dates previous to April 1 were inadvertently missed in transcribing from records kept for the *Audubon Field Notes* Spring Migration period, April 1-May 31. The following corrections should be made:

Pintail. March 31 (not April 1).  
 Marsh Hawk. March 14 (not April 3).  
 Common Crow. March 22 (not April 4).  
 Baltimore Oriole. May 13 (not May 11).

—Ed.



# Snowy Owls and Gray Partridge near Saskatoon in the Winter of 1963-1964

by J. B. Gollop, Saskatoon

Every fall Snowy Owls (*Nyctea scandiaca*) move south into Saskatchewan. Among the more conspicuous animals that might serve as food for them are Gray or Hungarian Partridge (*Perdix perdix*). In the course of weekend and holiday driving last winter, my wife and I recorded all individuals of these and most other animals seen. This note presents some results of these casual observations and suggests how winter bird distribution might be more systematically investigated.

All observations were made within a 40-mile radius of Saskatoon. Most of the land in this district is used for raising wheat and barley but there is some grazing land. Trees and bushes occur in and around depressions and along rivers and creeks; more extensive stands are found in the northwest quarter of the area. Topography varies from gently undulating to moderately rolling and altitudes are from 1,500 to 2,200 feet above sea level.

We drove a total of 3,700 miles in the country from November, 1963, through April, 1964. Most observations were made from a car going 20 to 35 miles per hour and practically all driving was done between 12 and 5 p.m., C.S.T. Monthly mileages (corrected for odometer error) were as follows: November, 420 miles (on eight days); December, 715 miles (13 days); January, 550 miles (10); February, 675 miles (11); March, 760 miles (9); April, 610 miles (11). Some routes were duplicated but no attempt was made to drive the same routes at regular intervals. Often when a stop was made to record data, the landscape was scanned with 7 x 50 binoculars (or 30 x 60 spotting scope). As a result, an area with more birds near the road tended to have more birds recorded away from the road. No record was kept of Snowshoe Rabbits or Hares (*Lepus americanus*), farm dogs, or mammal tracks, the latter probably being a better indication of distribution than direct observations of the animals themselves.

Many factors affect counts made from a road. We had little information

on how daily and seasonal activities of the birds might affect their visibility. Since Snowy Owls occupy higher sites—knolls, posts, poles, etc.—than partridge, we probably saw a higher and more consistent proportion of owls. Most partridge were observed on or near the road, often largely hidden in the snow; when flushed they usually flew into bushes, trees, farm yards and over hills out of sight. Traffic, predators and lack of solid snow cover, as was the case in December and March, probably adversely affected counts of partridge more than owls. On the other hand, owls are less easily seen on overcast days than in bright sunshine, while cloud conditions probably have less effect on partridge counts. We do not know the effect of other weather factors, e.g., temperature and wind, on the habits of other species. Distance of birds from the road was not recorded on a regular basis, but the figures below may include most of the partridge within one-eighth mile of the road and most owls within a half mile, if not a full mile, of it.

From November 3, 1963, to March 30, 1964, 154 Snowy Owls were recorded. We do not know whether this is a high, medium or low number of owls for this district. Their monthly distribution and the average number of linear miles driven for one owl observation were as follows: November: 1 owl (1 owl:420 miles); December: 23 (1:31); January: 58 (1:9); February: 26 (1:26); March: 46 (1:17); April: none in 610 miles. A total of 2,145 partridge were recorded: 61 in November, 290 in December, 493 in January, 1,077 in February, 210 in March, 14 in April. We saw no evidence of shooting but did find six dead partridge, one dead Sharp-tailed Grouse (*Pedioecetes phasianellus*) and three dead owls near the road.

Generally speaking, Gray Partridge and Snowy Owls did not appear to concentrate in the same areas. Table 1 shows the geographical relationship between concentrations of these species as well as related numbers of Sharp-tailed Grouse, eagles (*Aquila*





Snowy Owls

Studio portrait by R. R. Taylor

*chrysaetos* in one case), Goshawks (*Accipiter gentilis*), Short-eared Owls (*Asio flammeus*), Red Foxes (*Vulpes fulva*) and Coyotes (*Canis latrans*). A concentration is here defined as an average of two or more partridge per mile or one Snowy Owl in two miles or less of a given route. (Numbers in parentheses are dead birds, not included in totals.)

In only three instances (January 19, February 23 and 29) of 12 did large

numbers of owls and partridges occur in the same area. On the other hand, other predators, particularly eagles and foxes, which were probably much less abundant than Snowy Owls, were recorded only in districts with partridge concentrations.

Based on other observations (Table 2), it would appear that the three high partridge-owl concentrations were fortuitous or temporary. Because of blocked roads and lack of a carefully



planned project only a few areas received identical coverage several times during the season. Three such areas are shown in Table 2.

In the Vanscoy-Delisle-Asquith area it will be noted that at least 11 owls moved through the area between January 1 and February 2, in spite of a continuing, high population of partridge. (This assumes that the owls did not die or were not overlooked on February 2.) On March 28 in the Allan-Elstow-Clavet district, 17 owls were noted in an area that had practically no partridge or owls on three previous trips. South of Clavet, six owls were present on February 29 with a concentration of partridge. The absence of partridge on March 30 could be attributed to flock dispersal due to pairing. Partridge were observed courting near Saskatoon on March 2.

No predators were seen to attack partridge. On December 23 a Snowy Owl was seen chasing a Rock Dove (*Columba livia*) which it did not catch; on February 23 an owl flew from a ditch with some unidentified prey.

As stated above, we have little information on actual densities of birds. The highest density of owls was noted on the last date that any were seen—March 30. Seven birds were observed in 1.5 sq. mi. of cultivated land within two miles of Allan. The highest density of partridge was 70 in one-quarter sq. mi. around two deserted farms, four miles northwest of Delisle on Feb. 2. A fox and a Snowy Owl were seen together about two miles from this concentration. While densities are not indicated, a 26-mile stretch of road

between Hanley and Allan had an unusual variety of predators through the winter. On December 8 an eagle was seen. On December 28 there were four Short-eared and three Snowy Owls, one fox, and a Coyote had treed a Lynx (*Lynx canadensis*). On March 30 two Great Horned Owls (*Bubo virginianus*) were flushed from a nest along this route and a northbound Marsh Hawk (*Circus cyaneus*) was noted. Other species on December 28 were partridge (42), pheasants (2), Rock Doves, Horned Larks (*Eremophila alpestris*, 2), magpies (*Pica pica*, 7), House Sparrows (*Passer domesticus*), redpolls (*Acanthis flammea*, 275), and Snow Buntings (*Plectrophenax nivalis*, 105).

In spite of biases of unknown quantity and magnitude, the above data indicate that Snowy Owls in the Saskatoon district during the winter of 1963-64 did not concentrate in areas of high partridge populations. This in turn may indicate that Gray Partridge were not an important source of food for many Snowy Owls. On the other hand it appears that eagles and foxes were more closely associated with concentrations of partridge.

Populations of Snowy Owls in Saskatchewan apparently fluctuate from one winter to the next but there is no quantitative information on their numbers. Statements on abundance are usually based on impressions or reports from taxidermists. It may be that a network of roadside counts through the southern part of the province, conducted annually and in such a manner as to avoid the defects pointed out above, could provide an

Table 1. Geographical relationship between partridge and possible predators.

				Gray Part- ridge	S-t. Grouse	Snowy Owls	Other Predators
		Area	Miles				
Jan.	1	Vanscoy-Delisle-Asquith	24	143	5	1	1 Golden Eagle
"	1	Vanscoy-Delisle-Asquith next	10	0	0	5	0
"	5	Aberdeen-Vonda	27	0	0	15	0
"	19	Vanscoy-Delisle-Asquith	20	47 (1)	0	12	2 eagles
"	26	Clavet-Elstow	39	192	0	2	1 fox, 2 SEO*
Feb.	2	Vanscoy-Delisle-Asquith	40	171	1	2	1 fox, 1 eagle
"	15	Vanscoy-Delisle-Asquith	45	227 (1)	0	2	1 Coyote, 1 Goshawk
"	16	Saskatoon-Bradwell	56	138	2**	2	2 foxes, 1 SEO*
"	23	Floral-Dundurn-Elstow	75	154	2	5	2 foxes
"	29	South of Clavet	7	33	0	6	1 eagle
Mar.	1	Saskatoon-Delisle-Asquith	39	96	8 (1)	1	0
"	30	Allan-Elstow	20	0	0	19	0

\*Short-eared Owl. \*\*Also 1 Ring-necked Pheasant (*Phasianus colchicus*)



Table 2. Partridge and possible predator relationships in three areas that were closely examined during the season.

			Gray Partridge	Snowy Owls	Others
Vanscoy-Delisle-Asquith 20 miles	Jan.	1	105	1	1 Golden Eagle
	"	19	47	12	2 eagles
	Feb.	2	149	1	1 eagle, 1 fox
	"	15	162	2	1 Goshawk
	Mar.	1	60	1	—
Allan-Elstow-Clavet: 18 miles	Dec.	28	8	1	—
	Jan.	26	0	0	—
	Feb.	23	6	0	—
	Mar.	30	0	17	—
South of Clavet: 7 miles	Jan.	26	48	1	—
	Feb.	16	24	2	1 fox
	Feb.	29	33	6	1 eagle
	Mar.	30	2	0	1 Golden Eagle

index of abundance from year to year. The requirements might be: (1) A route of at least 40 miles (based on miles-per-owl above) along a road likely to be kept open during the winter. A route that starts and ends near home is ideal. (2) Coverage every two to four weeks from November through April. Routes should be covered during the same part of the day each time and, if possible, under clear skies. (3) Observations made in a consistent manner, e.g., a 360° scanning of the landscape with binoculars at

two-mile intervals and naked-eye observations in between while driving 20-30 m.p.h. The same, preferably two, observers should conduct the survey each time. Record should also be kept of snow conditions.

Such an undertaking might also yield information on the status of upland game birds and other species. As indicated above, it can give a bird-watcher a new perspective of what is usually considered a slack season for birds.

# Twenty-third Annual Saskatchewan Christmas Bird Count, 1964

compiled by Mary Houston, Saskatoon

Unfavorable weather during the entire Christmas season seems to have discouraged bird counters this year. Reports were received from only 25 Saskatchewan points (two of these count areas reporting from Kelvington) and only 48 species of birds were seen on count day with an additional seven species during the count period. A Trumpeter Swan at Regina, the only species not seen previously on a Saskatchewan Christmas bird count, brings the 23-year total to 111 species.

Black-billed Magpies, seen in all 25 localities and House Sparrows reported from 23, were the commonest birds, with Black-capped Chickadees running

a close third in 19 of the 25 possible localities. Sharp-tailed Grouse were reported in 17 and Gray Partridge in 16 of the counts. Of particular interest was the Horned Lark, seen in 13 localities, many of them further north than is to be expected at this time, especially in a year with below average temperatures and above average snowfall.

Regina led the field with 37 species, including quite a variety of waterfowl. Saskatoon's claim to fame was perhaps endurance—the temperature being —35° at 9 a.m. and still —34° at noon.

One count each was received from Alberta and the Northwest Territories.



Details of the Manitoba counts are now being submitted to the Newsletter of the Manitoba Natural History Society.

BANGOR, Sask. Dec. 26; 25 miles by car and around the farm yard. 11 species, 354 individuals. Ruffed Grouse, 1; Sharp-tailed Grouse, 3; Great Horned Owl, 1; Hairy Woodpecker, 2; Downy Woodpecker 1; Black-billed Magpie, 4; Black-capped Chickadee, 4; House Sparrow, 75; Pine Grosbeak, 8; Common Redpoll, 50; Snow Bunting, 200.—*Mrs. A. Thompson.*

BATTLEFORD, Sask. Dec. 30; 28 miles by car and three on foot in 4½ hours; temp. —24°; wind NW at 3 m.p.h.; 22 inches of snow. 12 species, 323 individuals. Ruffed Grouse 2; Sharp-tailed Grouse, 17; Rock Dove, 11; Hairy Woodpecker, 2; Horned Lark, 73; Blue Jay, 1; Black-billed Magpie, 22; Black-capped Chickadee, 3; Bohemian Waxwing, 31; Starling, 1; House Sparrow, 17; Snow Bunting, 143.—*Spencer G. Sealy.*

BLADWORTH, Sask. Dec. 24; 15 miles by car and around yard; temp. —30° to —15°; calm; 1 foot of loose snow everywhere. 8 species, 390 individuals. Goshawk, 1; Gray Partridge, 22; Horned Lark, 100; Black-billed Magpie, 10; Black-capped Chickadee, 1; House Sparrow, 30; Pine Grosbeak, 1; Snow Bunting, 225. (Add: Sharp-tailed Grouse, 19, Dec. 25 and 3, Dec. 25, and 4, Jan. 2; Rock Dove, 22, Dec. 25; Hairy Woodpecker, 1, Dec. 31; Starling, 2, Jan. 1.)—*P. Lawrence Beckie.*

DILKE, Sask. Jan. 1, 1965; 5 hours; 36 miles by car, 2 miles on foot and around the farmyard; temp. —10° to 6°; wind SW at 5 m.p.h.; 12 inches of snow, drifted. 13 species, 1884 individuals. Goshawk, 1; Golden Eagle, 1; Sharp-tailed Grouse, 12; Gray Partridge, 68; Rock Dove, 16; Snowy Owl, 1; Downy Woodpecker, 1; Horned Lark, 45; Black-billed Magpie, 16; Black-capped Chickadee, 1; Starling, 2; House Sparrow, 220; Snow Bunting, 1500. (Add: Great Horned Owl, 1, Jan. 2.) *Boswell Belcher* (compiler), *Margaret Belcher*, *Mr. and Mrs. S. R. Belcher*, *Mrs. J. Mortin.*

ELLISBORO, Sask. Dec. 24; 12 miles by car; temp. —15°; wind light. 5 species, 352 individuals. Sharp-tailed

Grouse, 40; Rock Dove, 8; Black-billed Magpie, 4; House Sparrow, 100; Snow Bunting, 200.—*Mrs. P. Churchman.*

ERINFERRY, Sask. Dec. 24; at yard feeding station; temp. —20°; calm. 7 species, 68 individuals. Downy Woodpecker, 1; Gray Jay, 4; Blue Jay, 8; Black-billed Magpie, 1; Black-capped Chickadee, 4; Golden-crowned Kinglet, 30; Snow Bunting, 20.—*Mrs. E. A. Dodd.*

ETHELTON, Sask. Dec. 29; about yard. 8 species, 324 individuals. Hairy Woodpecker, 2; Downy Woodpecker, 1; Black-billed Magpie, 4; Black-capped Chickadee, 4; House Sparrow, 24; Pine Grosbeak, 12; Common Redpoll, 2; Snow Bunting, 275. (Add: Great Horned Owl, 1, Dec. 23; Raven, 2, Dec. 28.)—*Genevieve Belliveau.*

FORT QU'APPELLE, Sask. Dec. 26; temp. about —20° at noon; about 15 in. snow; 7 species, 114 individuals. Sharp-tailed Grouse, 23; Downy Woodpecker, 1; Black-billed Magpie, 21; Black-capped Chickadee, 4; Bohemian Waxwing, 3; House Sparrow, 46; Snow Bunting, 16. (Add: Ruffed Grouse, 2, Jan. 1; Gray Partridge, 7, Dec. 23, 25; Rock Dove, 7, Dec. 30; Blue Jay, 2, Dec. 28 and 1 Jan. 1, 3; Pine Grosbeak, 7 reports, max. flock of 20; White-throated Sparrow, 1, at Callin's feeding station daily from Nov. 16 to Dec. 24, then disappeared.)—*Dr. and Mrs. G. D. Barnett, Alden Barnett, E. Manley Callin* (compiler), *Richard Carter, Mr. and Mrs. Errol Cochrane, Mr. and Mrs. Wm. Gray, Ian Macpherson, Richard Nevard, Horace Reed, S. P. Regan.*

GRENFELL, Sask. Dec. 25; 6½ miles by car and around yard all day; temp. —10°; wind west at 4 m.p.h.; 10 inches of snow. 5 species, 355 individuals. Great Horned Owl, 1; Horned Lark, 10; Black-billed Magpie, 4; House Sparrow, 250; Snow Bunting, 90. (Add: Sharp-tailed Grouse, 6, Dec. 20; Gray Partridge, 4, Dec. 20; Rock Dove, 5, Dec. 20; Black-capped Chickadee, 1, Dec. 29; Bohemian Waxwing, 17, Dec. 22; Common Redpoll 10, Jan. 1.)—*Mr. and Mrs. John Hubbard.*

HAWARDEN, Sask. Dec. 24; 20 miles by car and on foot around yard; 2½ hours; temp. —25°; cloudy; 1 foot of snow. 5 species, 243 individuals. Gray Partridge, 15; Rock Dove, 10;



Horned Lark, 13; Black-billed Magpie, 5; House Sparrow, 200. (Add: Sharp-tailed Grouse, 1, Dec. 21; Snowy Owl, 1, Dec. 20 and 30; Snow Bunting, 1, Dec. 28 and 4, Jan. 1.)—*Harold Kvinge*.

KELVINGTON, Sask. Dec. 29; around yard throughout the day; 10 inches of snow, but summerfallow bare. 6 species, 92 individuals. Hairy Woodpecker, 2; Downy Woodpecker, 1; Black-billed Magpie, 1; Black-capped Chickadee, 3; Bohemian Waxwing, 55; House Sparrow, 30. (Add: Sharp-tailed Grouse, 11, Jan. 2; Great Horned Owl, 1, Dec. 23; Raven, 1, Jan. 3; Evening Grosbeak, 5, Dec. 28; Pine Grosbeak, 2, Dec. 28; Snow Bunting, 60, Dec. 30.)—*Brian Irving*.

KELVINGTON, Sask. Jan. 2, 1965; about the town of Kelvington; one-half hour; temp. 15° to 20°; variable cloudiness; light wind. 7 species, 51 individuals. Hairy Woodpecker, 1; Down Woodpecker, 1; Blue Jay, 1; Black-billed Magpie, 2; Black-capped Chickadee, 6; House Sparrow, 26; Evening Grosbeak, 14. (Add: Gray Partridge, 6, Dec. 22; Raven, 5, Jan. 3; Pine Grosbeak, 18, Jan. 3.)—*Steve Waycheshen*.

KINDERSLEY, Sask. Jan. 1, 1965; 8 miles by car and 2 miles on foot; 1½ hours; temp. 5°; clear; wind, 10 m.p.h. 20 inches of snow. 4 species, 246 individuals. Gray Partridge, 41; Great Horned Owl, 2; Horned Lark, 80; House Sparrow, 123. (Add: Bohemian Waxwing, 5, Dec. 26; Starling, 15, Dec. 29; Snow Bunting, 100, Dec. 28.)—*Glen A. Fox* (compiler), *Kim Lamont*, *R. A. Lamont*.

LUCKY LAKE, Sask. Dec. 29; 95 miles by car; cold, overcast and some snowfall; 20 inches of snow, badly drifted. 6 species, 232 individuals. Gray Partridge, 15; Snowy Owl, 1; Horned Lark, 12; Black-billed Magpie, 2; House Sparrow, 20; Snow Bunting, 182. (Add: Sharp-tailed Grouse, 2, Jan. 2; Rock Dove, 18, Dec. 30; Common Redpoll, 15, on Dec. 25, and 20 on Dec. 26.)—*Mrs. E. Boon*.

McLEAN, Sask. Dec. 29; 10 miles by car and around yard; 7 species, 38 individuals. Ruffed Grouse, 2; Gray Partridge, 10; Hairy Woodpecker, 2; Downy Woodpecker, 2; Horned Lark, 8; Black-billed Magpie, 2; Black-cap-

per Chickadee, 12. (Add: Bohemian Waxwing, 6, Dec. 22; Pine Grosbeak, 4, Dec. 22.)—*Mrs. Harold Bray*, *Mrs. Hilda Newton*.

MOOSE JAW, Sask. Dec. 26; 18½ party hours and 20 miles on foot and 1½ party hours and 37 miles by car; temp. —20° to —14°; wind SE at 20 m.p.m.; a few clouds; 16 inches of snow. 12 species, 363 individuals. Sharp-tailed Grouse, 16; Ring-necked Pheasant, 40; Gray Partridge, 24; Rock Dove, 16; Great Horned Owl, 2; Hairy Woodpecker, 1; Downy Woodpecker, 2; Black-billed Magpie, 14; Black-capped Chickadee, 10; Bohemian Waxwing, 6; Starling, 2; House Sparrow, 230.—*Dr. A. J. Beddie*, *Mr. Carl Ellis*, *John Ellis*, *Mary Jane Ellis*, *John Horton* (compiler), *Mrs. Hugh McIntyre*, *George and Michael Rhodes*, *Mrs. C. V. Stokins*, *Mrs. F. B. Taylor*, *Mrs. C. West* (Moose Jaw Natural History Society).

NIPAWIN, Sask. Dec. 27; 28 miles by car and 2 miles on foot in 5 hours; temp. —5°; wind NW at 10 m.p.h.; overcast; 8 inches of soft snow. 14 species, 80 individuals. Pigeon Hawk, 1; Ruffed Grouse, 1; Great Horned Owl, 1; Hairy Woodpecker, 1; Downy Woodpecker, 2; Blue Jay, 2; Black-billed Magpie, 20; Common Raven, 21; Black-capped Chickadee, 2; Boreal Chickadee, 2; Starling, 17; House Sparrow, 3; Pine Grosbeak, 6; Harris' Sparrow, 1.—*David Riome* (compiler), *S. D. Riome*, *M. G. Street*.

REGINA, Sask. Jan. 3, 1965; 257 miles by car and 77 miles by foot; temp. —9° to 7°; winds light NE at 13 m.p.h. to S at 1 m.p.h.; clear, except mist over Waterfowl Park; 18 inches of snow cover in woods, most fields covered. 37 species, 3664 individuals. Mute Swan, 7; Whistling Swan, 8; Trumpeter Swan, 1; Canada Goose, 370; Mallard, 620; Gadwall, 2; Pintail, 1; American Widgeon, 1; Lesser Scaup, 1; Common Goldeneye, 2; Prairie Falcon, 1; Pigeon Hawk, 1; Ruffed Grouse, 2; Sharp-tailed Grouse, 20; Ring-necked Pheasant, 4; Gray Partridge, 122; American Coot, 3; Rock Dove, 67; Great Horned Owl, 10; Snowy Owl, 8; Short-eared Owl, 1; Downy Woodpecker, 4; Horned Lark, 6; Black-billed Magpie, 55; Common Crow, 1; Black-capped Chickadee, 12; Robin, 1; Bohemian Waxwing, 322;



Northern Shrike, 1; Starling, 15; House Sparrow, 1500; Purple Finch, 1; Pine Grosbeak, 2; Common Redpoll, 30; White-winged Crossbill, 3; Harris' Sparrow, 1; Snow Bunting, 458. (Add: Canvasback, 1; Ruddy Duck, 3; Saw-whet Owl 1; Hairy Woodpecker, 1)—Mrs. J. B. Bailey, Fred G. Bard, Margaret Belcher, Al Binnie, Frank H. Brazier, Mrs. Elizabeth Cruickshank, Mr. and Mrs. Adam J. Deutscher, Elmer L. Fox, Reginald Fox, James R. Jowsey, Fred W. Lahrman, Ferne Lawrence, Dr. and Mrs. George F. Ledingham, Loraine McPherson, Sally Moss, Robert W. Nero (compiler), Sharon Olauson, Hugh C. Smith, Carla W. Stein, Mr. and Mrs. Herbert F. Tempel, Phil Tempel, T. Vic Wilshire (Regina Natural History Society).

ROSE VALLEY, Sask. Dec. 31; 10 miles by car and about the yard; 6 species, 103 individuals. Sharp-tailed Grouse, 15; Blue Jay, 1; Common Raven, 1; Black-capped Chickadee, 6; House Sparrow, 30; Snow Bunting, 50. (Add: Black-billed Magpie, 2, Dec. 23; Evening Grosbeak, 10, Dec. 24; Pine Grosbeak, 7, Dec. 24.)—W. A. Brownlee.

SASKATOON, Sask. Dec. 26; 19 party miles on foot in 12½ party hours, and 231 miles by car in 26½ party hours; temp. —35°, rising in the afternoon; overcast; wind light, 15 m.p.h. in the afternoon; 8 inches snow. 22 species, 4962 individuals. Mallard, 2; Pigeon Hawk, 1; Ruffed Grouse, 1; Sharp-tailed Grouse, 1; Ring-necked Pheasant, 16; Gray Partridge, 163; Rock Dove, 350; Great Horned Owl, 3; Hairy Woodpecker, 2; Downy Woodpecker, 4; Horned Lark, 41; Blue Jay, 7; Black-billed Magpie, 137; Common Raven, 1; Black-capped Chickadee, 27; Robin, 4; Bohemian Waxwing, 1,805; Starling, 22; House Sparrow, 2,170; Pine Grosbeak 41; Common Redpoll, 93; Snow Bunting, 71. (Add: Cedar Waxwing, 10, Dec. 27; American Goldeneye, 2, Jan. 1.)—Don Dabbs, Bob Folker, Jonathan Gerrard, Mr. and Mrs. J. B. Gollop, Jim Hogg, Andrew Horlick, Stuart Houston (compiler), Stan Houston, Jim Hrynyk, Dr. Arygve Larsen, Mr. and Mrs. Murray Martin, Bob Mills, Dr. Lucy Murray, Frank Roy, John and Stanley Shadick, Russ Shemko, Jim Slimmon (Saskatoon Natural History Society).

SHAUNAVON-VAL MARIE, Sask. Jan. 3, 1965; 20 miles by car; half a mile on foot; temp. —8°; sunny; 20 inches of snow. 8 species, 464 individuals. Sharp-tailed Grouse, 2; Sage Grouse, 1; Ring-necked Pheasant, 2; Gray Partridge, 30; Horned Lark, 321; Black-billed Magpie, 5; House Sparrow, 100; Snow Bunting, 3. (Add: Golden Eagle, 1, Dec. 27; Marsh Hawk, 1, Dec. 26; Snowy Owl, 1, Dec. 26; Long-eared Owl, 2, Dec. 25; Downy Woodpecker, 1, Jan. 2; Starling, 1, Jan. 2.)—J. David Chandler.

SPIRIT LAKE, Sask. Jan. 2, 1965; 3 hours and 4 miles on foot about the yards and surrounding country; 10 inches of snow. 13 species, 141 individuals. Hairy Woodpecker, 8; Downy Woodpecker, 9; Gray Jay, 1; Blue Jay, 1; Black-billed Magpie, 4; Black-capped Chickadee, 40; White-breasted Nuthatch, 4; Bohemian Waxwing, 5; House Sparrow, 52; Evening Grosbeak, 5; Pine Grosbeak, 3; Common Redpoll, 7; Snow Bunting, 2.—William Anaka, Joyce Gunn.

WOLSELEY, Sask. Dec. 22; 20 miles by truck and around farmyard; temp. —10°; 12 inches of snow. 10 species, 356 individuals. Sharp-tailed Grouse, 11; Great Horned Owl, 1; Hairy Woodpecker, 1; Downy Woodpecker, 2; Horned Lark, 9; Black-billed Magpie, 16; Black-capped Chickadee, 3; House Sparrow, 100; Pine Grosbeak, 13; Snow Bunting, 200; (Add: Golden Eagle, 1; Ruffed Grouse, 1; Gray Partridge, 17; Snowy Owl, 1; Bohemian Waxwing, 19; Northern Shrike, 1; Rusty Blackbird, 2.)—Donald Hayward.

WOODROW, Sask. Dec. 22; 45 miles by truck; temp. 0°; 10 to 12 inches of snow; cloudy. 10 species, 198 individuals. Sharp-tailed Grouse, 3; Ring-necked Pheasant, 7; Gray Partridge, 17; Rock Dove, 7; Snowy Owl, 1; Horned Lark, 50; Black-billed Magpie, 2; Starling, 2; House Sparrow, 9; Snow Bunting, 100.—C. H. Shulver.

YELLOW CREEK, Sask. Jan. 2, 1965; 2½ miles on skis, in 2 hours through farmyards, fields and light bush; temp. 15°; wind light; mostly clear; 8 inches of snow. 5 species, 69 individuals. Gray Jay, 1; Black-billed Magpie, 2; Black-capped Chickadee, 13; House Sparrow, 51; Snow Bunting, 2. (Add: Ruffed Grouse, 1, Dec. 23;



Great Horned Owl, 1, Dec. 28; Hairy Woodpecker, 2, Dec. 29; Downy Woodpecker, 1, Dec. 30.)— *Bohdan and Irene Pylypec*.

WETASKIWIN, Alta. Dec. 25; around farm yard; temp.  $-18^{\circ}$  to  $-10^{\circ}$ ; cloudy, clearing at noon; light south wind. 9 species, 41 individuals. Downy Woodpecker, 1; Northern Three-toed Woodpecker, 1; Blue Jay, 2; Black-billed Magpie, 2; Black-capped Chickadee, 6; House Sparrow, 24;

Evening Grosbeak, 3; Pine Grosbeak, 1; Common Redpoll, 1. (Add: Gray Partridge, 1, Dec. 27; Bohemian Waxwing, 20, Dec. 26; Starling, 5, Dec. 24 and 20 on Dec. 21; White-winged Crossbill, 8, Jan. 2; Snow Bunting, 125, Dec. 27.)—*Fred H. Pegg*.

CAMBRIDGE BAY, N.W.T. Dec. 29; 5 miles in 4 hours on foot; temp.  $-50^{\circ}$ ; wind NW at 5; almost light. 1 species, 11 individuals. Rock Ptarmigan, 11.—*Ramon C. Burron*.

## Third Annual Manitoba Christmas Bird Count, 1964

by **L. B. Smith**, Winnipeg

There were 40 species seen during the count period this year by the 42 observers who braved sub-zero temperatures and a snow depth of 7-14 inches to make the annual Christmas count. Three of these species had not been recorded on the two previous counts—Long-eared Owl, Cedar Waxwing and Red-winged Blackbird. This brings the three-year total for Manitoba to 60. Birds were reported generally to be scarce in the southern part of the province but at Thompson there were more birds than usual. Reports were received from 14 localities, two less than in 1963. All of these localities but Thompson are in the southern part of the province, ranging from Great Falls and Seven Sisters Falls in the east to Melita in the west.

The Long-eared Owl was seen at Winkler. There were two Cedar Waxwings seen in Winnipeg, one with a flock of Bohemian Waxwings and one alone. The three Red-winged Blackbirds were seen at Oak Lake in L. M. Hatch's farmyard. Black-billed Magpies were reported from nine localities, one of these being Thompson where two were seen. The numbers at the other localities ranged from one at Stonewall to 36 at Oak Lake. Blue Jays seemed to be only one third as numerous as in 1963. The highest count of Ravens was 74 from Thompson.

Snowy Owls were seen at Melita (3), Wawanesa (1) and Winnipeg (1) while one Hawk Owl was seen at Winkler. Bohemian Waxwings were seen at Boissevain (40) and at Winnipeg (132). Most of the Evening Grosbeaks were

sighted in the eastern part of the province, the top number being only 36 at Seven Sisters Falls. The reports of Common Redpolls from six localities indicated they were not abundant anywhere but were well distributed throughout the province. The numbers of Snow Buntings ranged from one at Melita to 400 at Boissevain.

Some of the summer resident birds that were attempting to survive the winter were a female Mallard at Stonewall, a Golden Eagle at Oak Lake, Horned Larks at Boissevain and Wawanesa, a Robin at Winnipeg, a Slate-coloured Junco at Oak Lake and a White-throated Sparrow at Seven Sisters Falls.

I am indebted to Harold Hosford who did most of the collecting and preliminary compiling of the data. A fuller account will appear in the Newsletter of the Manitoba Natural History Society.

### COOPERATIVE SPRING MIGRATION STUDY

Records are again requested for the continent-wide survey being made under the auspices of the U.S. Fish and Wildlife Service. As soon as it is available, we shall have a list of species for which reports are wanted; please write for the list and then submit your records by June 15, 1965, to

Mrs. STUART HOUSTON,  
863 University Drive,  
Saskatoon, Sask.



# Recent Pocket Mouse Records for Saskatchewan

by Robert W. Nero, Regina

This note records the occurrence of the Olive-backed Pocket Mouse (*Perognathus fasciatus*) at 12 new localities in Saskatchewan (see Table). Previously records have been reported for 23 other localities (Nero, 1957, 1958 and 1959). Present records extend the range (as shown in Nero, 1958) to the east side of Last Mountain Lake and some 40 miles to the east of Regina. Efforts to locate pocket mice further east, mainly in the Broadview area where suitable habitat was found, have so far been unsuccessful. Some earlier records of pocket mice which have not been noted in the zoological literature are included.

Information on each of the records shown in the table follows:

1. While walking down a pasture trail on the Milo Boxrud farm six miles south and three miles east of Estevan about 3:00 a.m. on April 20, 1961, I saw a pocket mouse at my feet for a brief moment in the light of a flashlight. While I dislike introducing a sight record for this species, I feel that it was unmistakable under the circumstances. This locality is, of course, well within the known range for this species and only 20 miles or so from the North Portal record.

2. Ralph Carson, Gary Anweiler, and Ross Lein, while on a Sask. Museum of Nat. History field trip, collected four specimens along a sandy road close beside the South Saskat-

chewan River at Saskatchewan Landing late at night in the car headlights. This was on June 16, 1961.

3. On May 16, 1961, we collected a specimen after dark in the Big Muddy Valley bottoms, near the south side of the valley, about 11 miles south of Bengough.

4. Late at night and using the car headlights I caught a female and saw at least four others on May 23, 1961, along the edge of a road bordered by weeds in a sandy area on the west side (top of the valley) of Cottonwood Creek about 7½ miles WNW of Regina. I have since seen their signs in the same area on several occasions, e.g., fresh tracks on November 4, 1963.

5. During a biology class field-trip on September 26, 1961, a student brought me a carcass of a pocket mouse which he had found at the entrance of a badger burrow. This was west of Govan, near the shore of Last Mountain Lake. This is the first record for the east side of the lake.

6. I caught a female by hand in mid-morning in some low brush along a fallow field. The mouse had apparently been started up by my dog. This was on October 21, 1961, about four miles NE of Ceylon.

7. A freshly killed Red-tailed Hawk which Ralph Carson and I found near Radville on October 28, 1961, was later found to contain a pocket mouse.

8. A male was collected at night on

Recent Pocket Mouse Records for Saskatchewan.

Locality	Date		Number	Collector
1. Estevan	April 20	1961	1 (sighted)	R. W. Nero
2. Sask. Landing	June 16	1961	4	R. D. Carson et al
3. Big Muddy Valley (near Bengough)	May 16	1961	1	R.W.N.
4. Cottonwood Creek (near Regina)	May 23	1961	1	R.W.N.
5. Last Mountain Lake (west of Govan)	Sept. 26	1961	1	R.W.N.
6. Ceylon	October 21	1961	1	R.W.N.
7. Radville	October 28	1961	1	R.W.N. & R.D.C.
8. Strawberry Lakes	May 20	1962	1	R.W.N. & R.D.C.
9. North Portal	August 7	1962	1	Ross Lein
10. Meyronne (6 mi. S.)	Oct. 13 & 25	1963	1, 2	R.W.N. et al
11. Beechy	June 5-6	1964	2, 5	R.W.N. et al
12. Meyronne (6 mi. SE)	October 9	1964	1	R.W.N.



May 20, 1962, by me by hand on a trail road across a thin stand of open prairie on high sandy land between two of the Strawberry Lakes known locally as "Strawberry Lake" and "Raspberry Lake." This locality is south of Indian Head. This was a male in breeding condition (testes scrotal, weight 13.2 gms.) which was kept in captivity until it died on August 8, 1963; (skin discarded, measurements: total length—133., hind foot—17.5, tail—59., ear—7.). This was the only mouse seen in the area though we looked long and carefully for two nights and ran a trap-line. This area is quite sandy and provides a suitable habitat though surrounded by considerable aspen. This record extends the known range about 60 miles to the east (from the Cottonwood Creek locality).

9. Ross Lein caught one by hand on August 7, 1962, on a road at night in the car headlights about  $5\frac{1}{2}$  miles west of North Portal near the international border.

10. On October 13, 1963, we saw four and captured one at night in the sand dunes in the community pasture, six miles south of Meyronne. On October 25, 1963, in practically the same locality, we captured two at night.

11. We caught two late in the evening of June 5, five in the late evening of June 6, and saw several others, in sandy prairie habitat close to the summer camp of the Society, about 10 miles southeast of Beechy. (See Nero, 1964, for details of other mammal species collected at the same time.)

12. On October 9, 1964, while hunting about six miles southeast of Meyronne, my dog flushed a pocket mouse which was captured. This was at 11:00 a.m. in a sandy fallow field in which there were numerous signs of activity, e.g., burrows, tracks, of this species. There was no doubt that this mouse was clearly out of its burrow and active.

It is of interest to note that the pocket mouse in Saskatchewan seems to move about to some extent in the daytime; we now have two records of mice seen and captured in mid-morning (items 6 and 12), and presumably the mouse found as a food item in the Red-tailed Hawk (item 7) was captured during daylight hours. Anthony (1928:311) stated that this mouse was

"strictly nocturnal" coming "out only after sundown." It may very well be that late in the fall the pocket mouse spends a maximum amount of time laying in stores of food and hence is also prone to work in daylight hours. Note that the three observations are for October 9, 21, and 28.

It is also clear that this species is active for at least eight months of the year in Saskatchewan. We now have dates as late as November 25 (1925, in Nero, 1957) and as early as April 1 (1960, beyond). This seems rather remarkable considering the nature of our climate, but these are perhaps more resourceful creatures than one would suspect. Pocket mouse remains were identified among the stomach contents of two of several dozen Great Horned Owls trapped by Keith Thue at the Provincial Game Farm, Beaver Creek (south of Saskatoon) as briefly reported by the late Dr. Robert Connell (1962). Parts of two rodents considered to be this species were found in a female owl received from the Game Farm, October 14, 1959, and one was found in a female owl received April 1, 1960 (personal correspondence, Robert Connell, 1962). Recently I wrote to ask Keith Thue about the April specimen as this date seemed rather early for that northern part of the range of the pocket mouse. In a letter dated January 5, 1965, Thue states: "There is no doubt in my mind at all that the owl referred to was supplied to Dr. Connell within a few days, a week at the most, after it was caught." This suggests that the mouse may have even been taken a few days earlier than the April 1 date. Note that the next earliest dates are April 20 (item 1), and April 23 (in Nero, 1957).

In a letter to Thue dated October 20, 1959, Dr. Connell gave this interesting report of his autopsy of one of the owls:

"247—Female [owl]. A few lice, all *Strigiphilus oculatus*. Stomach with remains of two small, mouse size sciuriform rodents. I do not believe that these could be anything except *Perognathus* sp. (pocket mouse). One female flea was found in the stomach content. This was established to be a *Meringis* sp. In passing it through alcohols in preparation for cleaning, mounting and specific identification, *Meringis* was poured down the sink



and lost in the five o'clock hurry to get away. With a stomach content containing *Perognathus* and *Meringis* this owl either came with it from near the United States border or else pocket mice range farther north than hitherto known." Dr. Connell, of course, had then not been aware of the report which included Beaver Creek as within their range (in Nero, 1958).

What were believed to be pocket mouse burrows were observed at Red Fox [= Redfox] Lake (in 1937) and at Swift Current Creek south of Gull Lake (in 1946) as reported by J. Dewey Soper (1961). Redfox Lake is in the Strawberry Lakes district.

Recently I came across some earlier records of pocket mice which have apparently been overlooked and which do not appear, so far as I know, in the zoological literature. In a report in the *American Journal of Botany*, Alexander Bakerspigel (1956) reports having trapped 260 mammals during a survey of Saskatchewan rodents for certain fungi. This was "from May to September, 1955." Ten pocket mice are included in his list of specimens (but these are not available). Species and localities are not related in this report, although his several trapping localities are shown. In an effort to determine the site at which the pocket mice were trapped I wrote to Dr. Bakerspigel for further information. In a letter dated January 14, 1965, he states: "As far as I can determine the general areas where the 10 pocket mice were trapped were a few miles south of Saskatoon and around Watrous." The nearest trap-

ping site to Watrous is shown in his published report (1956) as being fairly close to the Saskatchewan River. This leads me to suggest that these specimens were probably trapped within the sandy region on the east side of the Saskatchewan River and some distance west of Watrous. In any event these sites are pretty well within the known range as recently established by some definite records.

I should also like to report that a male pocket mouse taken west of Nokomis on September 17, 1959, died in captivity on August 5, 1963.

I wish to thank the following persons who rendered assistance in searching for pocket mice: Gary Anweiler, Ralph D. Carson, Robert R. Taylor, Charles Thacker, and Alan Wade. Mr. and Mrs. Adam Deutscher deserve thanks for introducing me to the Strawberry Lakes region. A camp-out with Mr. and Mrs. Doug Wade, in which my family participated, provided an excuse for looking for pocket mice in that interesting locality.

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## Fabric from an Early Saskatchewan Trading Post

by Alice B. Kehoe, Regina

A unique discovery was made by the Saskatchewan Museum of Natural History archaeological expedition excavating a trading post built on the Saskatchewan River near Nipawin. The post, occupied 1768-1774, was operated by François le Blanc, an experienced French voyageur, and James Finlay, Sr., a Scottish immigrant who had become a merchant in Montreal. Their venture was a pioneering one,

the only earlier trading post in Saskatchewan having been the short-lived outpost of Fort Paskoyac run by the Chevalier à la Corne. The phenomenal success of François' and Finlay's post encouraged other independent traders to penetrate up the Saskatchewan River, and forced the Hudson's Bay Company to establish its first inland post at Cumberland House.

The Saskatchewan Museum excav-





Photo by T. Kehoe

Fabric from site FhNa-19, the François-Finlay Trading Post (Scale: shown on K & E 5 x 5 = 1/2" graph paper)

ated the site of the trading post during the summers of 1963 and 1964, under a grant provided by the Saskatchewan Power Corporation's program for archaeological salvage in the Tobin Reservoir area. The first season's work uncovered the well-preserved foundations of the set of buildings used during the last years of operation of the post. An exhibit on this compound, known as François' House, is on view in the Lower Gallery of the Saskatchewan Museum. The last season's work concentrated on another, less well-preserved set of buildings that probably represent the first cabins erected by the partners and their crew.

Although the Museum archaeologists found none of the fancy muskets and copper teapots allegedly recovered from the site by treasure-hunters, the Museum's painstaking excavation did produce a good sample of the gunflints, awls, glass beads, cheap trinkets, and other goods sold by the traders. Specimens of Indian-made pottery, scrapers (some made from broken gunflints), and a stone arrowpoint were also discovered, and will be of great value as examples of the artifacts made by Saskatchewan Indians around 1770, serving to date

Indian sites of this period in which similar specimens may be found. One of the most interesting artifacts, however, is a find that may never be duplicated: a strip of fabric preserved for



Photo by T. Kehoe

Stone fireplace and timbers from the François-Finlay site. The fabric was found in a small refuse pit a few feet from the fireplace.

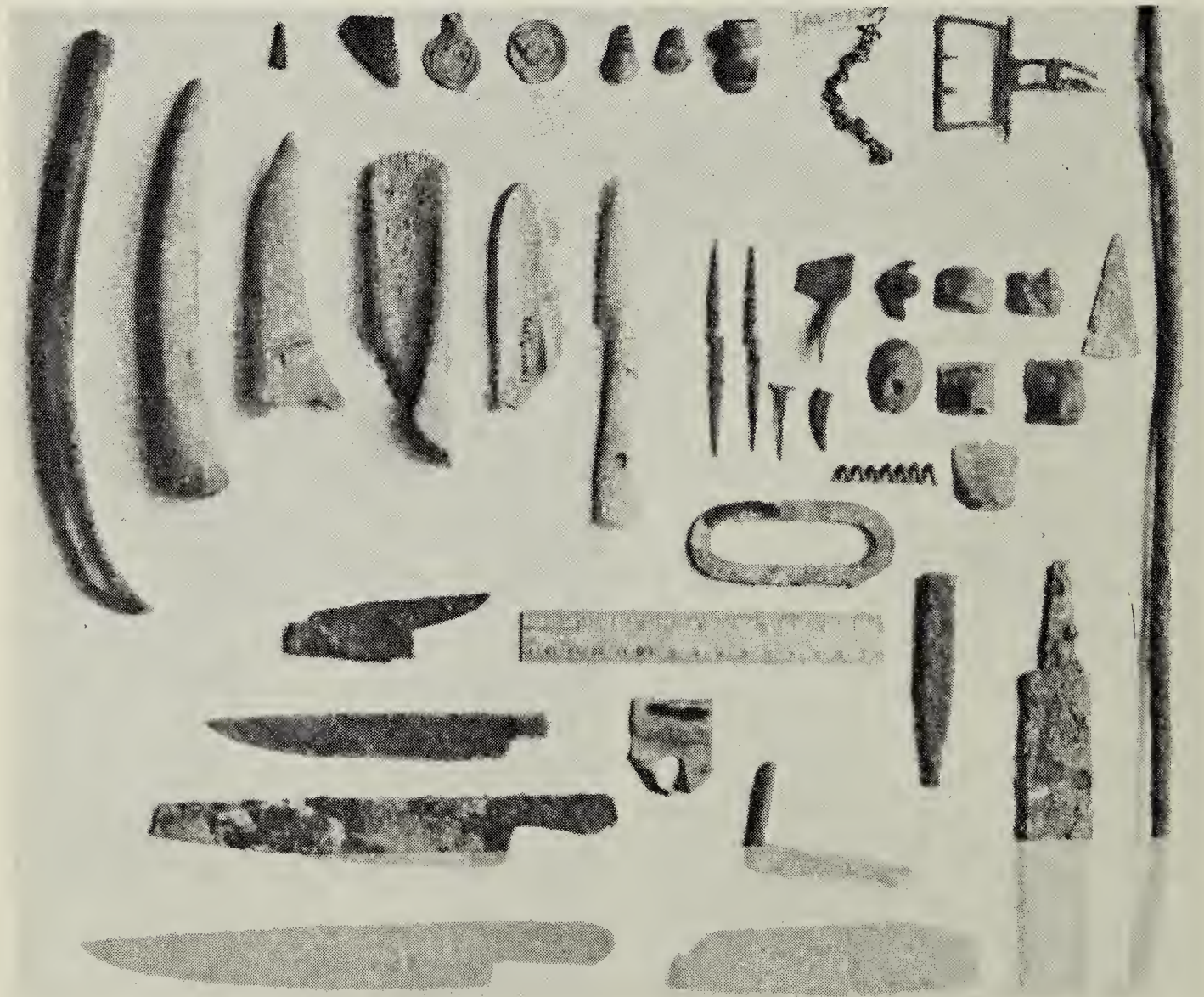


two hundred years because strips of copper had been interwoven with the threads. Copper salts formed as the fabric lay buried prevented the decay of the perishable cloth.

The fabric consists of a base of plain-woven flax thread, into which have been woven narrow, paper-thin strips of a copper alloyed with a small quantity of silver. The same metal (which may have been a deliberate alloy, or a poorly-refined copper) was used at the site for tinkling cones, rolled strips an inch or two long that were sewed or tied to clothing to make a pleasant tinkle in movement. It seems likely that the copper may have been brought to the post in sheets, to be cut up there and rolled into cones, rather than imported as finished cones. If this was the case, it is possible that the fabric was woven at the post, using copper cut into narrow strips instead of into rectangles for rolling. The flax may have been imported as thread, or perhaps unraveled from a linen shirt. (William Tomison, a Hudson's Bay Company man, reported

that François wore a "ruffed Shirt," no doubt of linen.)

How was this copper-highlighted fabric used? It apparently was designed as a strip, not a piece of cloth. A broken prong, probably from a belt buckle, lay near the fabric, suggesting it may have served as a belt or an ornamental strap. Either the French-Canadian voyageurs or the Indians trading at the post might have worn such a strap. Either a Quebec demoiselle or an Indian maiden may have woven it for her man. Both belonged to peoples with long traditions of weaving, and although the French could produce finer fabrics than are known to have been made by the Indians of the eastern prairies and adjacent forests, the simplicity of the fabric found at François' and Finlay's post renders it within the skill of either. Thanks to the ingenious interweaving of copper, the strip of fabric has survived two hundred years to remind us of the gaiety that could enliven the harsh life at these remote trading posts.



Artifacts from the François-Finlay site

Photo by T. Kehoe



# Rediscovery of *Stephanomeria* (Rush Pink) in Saskatchewan

by John H. Hudson, Saskatoon

The yearly field meeting of the Saskatchewan Natural History Society held southeast of Beechy on 6 and 7 June, 1964, was made memorable for me by discovering on the Saturday journey a "new skeleton-weed" in the shale badlands of the valley sides.

The plant came to my notice by differing from our everyday Purple Skeleton-weed (*Lygodesmia juncea*) in having at least the basal leaves pinnatifid (with comb-like teeth to the leaves) rather than linear and entire if present at all. When I found the milky sap to be white instead of yellow-green (as is that of Purple Skeleton-weed) I knew something unusual had turned up. No flowers further advanced than mere buds could be found, but I collected the material anyway, on NW 6-20-11w3, 1/2 mile north of the "Sinking Hill." As a preliminary guess it seemed to agree with the description of *Stephanomeria tenuifolia* (Torr.) Hall, Rush Pink, in Moss (1959).



Conversion from kodachrome  
by G. F. Ledingham

Rush Pink, above Frenchman River,  
June 28, 1964

Sunday morning Dr. G. F. Ledingham and I went out southeast from the camp hoping to run into the plant in flower. No luck; plenty of *Stephanomeria*, but no flowers. We observed, however, that it is rigidly confined to powder-shale beds—that is, beds of loose flaky non-swelling clays which in the outcrop break down to a powder and lie at the angle of repose for loose sand. It does not grow on bentonitis (i.e., gumbo-like) beds. This could be of interest to geologists.

Later on in the summer (16 August) I got back to the camp area and collected the plant as J. H. Hudson #2211 on SE 7-21-9 w3. Much fruiting material and a few belated flowers were found. Specimens have been distributed to the Department of Agriculture at Ottawa and to the Fraser Herbarium in Saskatoon.

There is some doubt as to the right specific name for this material. Cronquist's key (1955) gives one a choice between *Stephanomeria runcinata* Nutt. with pinnatifid leaves and achenes pitted, tuberculate, and grooved, and *Stephanomeria tenuifolia* (Torr.) Hall with leaves merely toothed, and ribbed achenes. My material has pinnatifid leaves but ribbed achenes. I have distributed it as *S. runcinata* on the strength of the pinnatifid leaves. However, Alberta material has been reported by Moss (1959) and North Dakota material by Stevens (1961) as *S. tenuifolia*. One would expect that all these reports to concern the same species. This is one for the specialists.

This article has been entitled "rediscovery," not "discovery." It turns out that G. M. Dawson of the Geological Survey of Canada, while on the Boundary Survey of 1873-74 (Dawson, 1875) got this plant, under the name of *Stephanomeria minor* Nutt. on June 29, 1874, from a "dry clay bank south of Wood Mountain." This would be in the Morgan Creek badlands west of Killdeer. The ironic point is that George Ledingham and I visited these outcrops on May 29, 1955. While there I remember seeing some odd-looking basal rosettes with milky



juice, and calling George's attention to them. We dismissed them as young Blue Lettuce, never asking ourselves just what Blue Lettuce would be doing on shale badlands. I'm sure now that these were *Stephanomeria*.

The following table will help to distinguish *Stephanomeria* from the two Saskatchewan skeleton-weeds, in case anyone is interested in finding it in their areas. Dr. G. W. Argus of the Fraser Herbarium (described in the June, 1964, issue of the *Blue Jay*) would be pleased to receive specimens. Going by geology it should occur southeast of Val Marie along the Frenchman River, and perhaps along Battle Creek near Merryflat, as well as at Morgan Creek. In fact, George

Ledingham collected it along the Frenchman on June 28, 1964—a few weeks after our discovery at Beechy (see photo).

The flowers are not mentioned in the table. All three species have similar thin-cylindric flower heads which have about five pink rays roughly one-half inch long.

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SEPARATION OF SKELETON-WEEDS

Names	<i>Lygodesmia juncea</i> Purple Skeleton-weed	<i>Lygodesmia rostrata</i> Annual Skeleton-weed	<i>Stephanomeria runcinata</i> (Rush Pink)
Leaves	Linear and entire, often reduced to scales or lacking.	Linear and entire, well-developed.	Pinnatifid to merely toothed, well-developed.
Roots	Perennial from deep running rhizomes (root-stocks).	Annual from a tap-root.	Authorities state a caudex (woody tap-root) to be present; our material, however, has well-developed creeping rhizomes.
Milky juice	Yellow-green, a fact not mentioned in floras.	White.	White.
Pappus (seed cotton)	Simple (hairs unbranched) pale brown.	Simple, white.	Plumose (hairs with featherlike branching), white.
Distribution	Dry places throughout prairie Saskatchewan.	Southwest only, open sand.	Southwest only, powder shale badlands.

Additional Notes on Common Mullein

at Saskatoon in 1964

by William S. Richards, Saskatoon



Common Mullein, Saskatoon, 1964

Since the first report of Common Mullein, *Verbascum thapsus* L. in Saskatchewan by J. H. Hudson (*Blue Jay*, March, 1962) there has been a further report of this plant occurring at Moose Jaw by Mrs. MacGillivray (*Blue Jay*, June, 1962). The accompanying photo shows a flowering specimen growing at Saskatoon in September, 1964.

During the summer of 1963 I revisited the site where I first found this plant growing, and although I thought I had made a thorough search of the area, I was unable to locate any first year rosettes or second year spike-heads. However, in 1964 I returned



once again to check the same place and was surprised to find a healthy looking specimen with a flowering stem developing. Apparently I must have missed the first year rosette in 1963. This specimen during the season grew to a height of about four feet.

Common Mullein, according to the reference books at the local library, has a number of other common names which include: Velvet Dock, Aaron's Rod, Adam's Flannel, Flannel Leaf, Blanket Leaf, Candle Leaf, Velvet Plant, Feltwort, Wild Tobacco, and Devil's Tobacco. In the book "Stalking the Wild Asparagus" (Gibbons, 1962), under a chapter dealing with folk medicine, it is mentioned as an ingredient of a cough syrup. Along

with mullein, the concoction included white spruce, wild cherry and red clover. In Europe during the Middle Ages part of this plant was used in the making of candlewicks which probably accounts for one of its common names, Candle Leaf.

This location in the C.N.R. yards at Saskatoon is to be redeveloped into an industrial park and it is quite likely that bulldozers and other earth-moving machinery will be working in this area in the near future. I consider it unlikely that this plant will survive here. With this in mind I collected the specimen and delivered it to Dr. George W. Argus, W. P. Fraser Herbarium, University of Saskatchewan at Saskatoon.

## Bluebur – A Weedy Pest

by **Keith F. Best**, Swift Current

Bluebur (*Lappula enchinata*) (Gilib.), also called stickseed, burseed and sticktight, is so named because of the burlike nutlets which cling to clothing and to the fur of animals. This plant is a member of the borage family (Boraginaceae) and derives its name *Lappula*, meaning little bur, from the Latin *lappa*, a bur. Introduced from Europe, Bluebur is now widely distributed in the West, but is usually only abundant in waste places such as roadsides and fencelines. Bluebur is frequently a pest in fields and pastures, often increasing on overgrazed range. The seeds which cling tightly to clothing and become entangled in the manes and tails of cattle and horses, as well as in the wool of sheep, are annoying to both man and beast.

A much-branched hairy annual or winter annual, bluebur grows from six inches to two feet in height. The alternate, narrow leaves are one to three inches long, the upper ones being stalkless, the lower ones generally stalked. The pale blue flowers are about  $\frac{1}{8}$  inch across and are found in erect racemes at the ends of the branches. The fruit consists of four nutlets with two rows of hooked prickles around the margins. The whole plant has a rather unpleasant smell like that of a mouse-infested building.

Bluebur is practically worthless as forage for cattle and horses and rates only as poor to fair for sheep.



Drawing by K. F. Best

Bluebur—*Lappula enchinata*



## Wild Black Currant



Photo by the late Dr. W. C. McCalla

*Ribes americanum* Mill.

The Wild Black Currant is common among thickets in rich alluvial river valleys throughout the southern half of the three prairie provinces. The greenish-white or yellowish flowers may be seen in late May and early June. The fruit, on drooping racemes, is black.



# The Little Giant of the Northern Wastelands

by **A. M. Howland**, Prince Albert

It has no beautiful flowers, no strong sturdy trunk, no spreading crown nodding in the breeze. The traveller hesitates in doubt when he meets the little giant who seizes his feet and makes his muscles strain for freedom. Who and what is it?

It is tiny, with a stem barely four inches long. Its branchlets vary from yellow to brown, green, purple, or red. But when united with millions of its kind, it forms huge mats that sometimes cover miles of the wastelands with a deep springy cushion of moss. As you walk on these spongy mats you sink down to your ankles and to your knees, and after you have gone, no record remains of your passing. It can implacably choke small lakes into oblivion.

It is *Sphagnum Moss*. The scientific name is *Sphagnum capillaceum* and sometimes the related species *S. palustre* is also found.

What good is it? You may be sur-

prised. It is used for a top dressing on lawns and gardens and as a packaging material for preserving and shipping flowers, shrubs and trees. As a land builder, it converts marshes into places where our valuable black spruce pulpwood can grow, and, over eons of time, into farmland. In some parts of the world it is the builder of peat-bogs, used as fuel by untold thousands of people. It makes good field dressings for open wounds, being highly absorbent. It makes a good mattress, and who has not heard of the old (and not so old) log cabins with the cracks chinked with moss to keep out the cold. If you peel back the moss in many muskegs, you will strike a layer of perma-frost, a real ice-box.

On a hot summer day when your shirt is sticking to your back, find a nice deep moss hummock beneath a shady black spruce, flop down and enjoy the cool comfort provided by this little giant of the wastelands.

## The Western Red Lily

by **Rita Timushka** and **Bonnie Drummond**, Swift Current

On the warm Sunday afternoon of July 12, our grade VIII principal and teacher of Elmwood School, Mr. K. G. Aberdeen, asked if we would like to spend the afternoon at Lac Pelletier. He mentioned that we would see lots of Western Red Lilies, the floral emblem of Saskatchewan which we had studied in class.

We left Swift Current at two o'clock and before three we arrived at a magnificent field of Western Red Lilies. We had seen pictures of them, but we had not realized how beautiful they really are. They are a lovely shade of bright orange. We went to the nearby farmhouse of Walter Blanke and got permission to pick some. We picked about forty which Mr. Aberdeen was going to press for next year's grade VIII class. The flowers were in prime condition and we noticed that they had a faint but noticeable perfume. Most stems had only one flower, but a few had two or three. While we were picking them we kept in mind that we

should leave several leaves on the remaining stem so that the plant could make and store food and grow again next year.

After taking the enclosed picture and caring for the lilies we proceeded to Darling's Beach where we enjoyed a refreshing swim and lunch. We had a very enjoyable outing and learned what a lovely flower our Provincial floral emblem is.



Photo by Mrs. Aberdeen  
Rita, Bonnie, Mr. Aberdeen and the  
Western Red Lilies



# Junior Naturalists

Edited by **Joyce Deutscher**, Regina

## COMMENTS, PRIZE WINNER AND CONTEST

Most of the material used in this issue arrived just too late for publication in the last issue. Juniors are reminded that the deadline for the next issue is April 15. Send your entries well ahead of time to Mrs. Joyce Deutscher, 1332 Edward St., Regina. Do keep up the good work. We have more material than we have room for which is a good position for an editor to be in.

Teachers are reminded to encourage students to contribute to this section of the *Blue Jay*. Mrs. Irene Shaw who sent in entries from her students put it very well when she said, "The boys and all of us will get a thrill if you can use their letters, but if you can't we still learned a lot putting down what we saw and asking questions. So we thank you for your contest and your corner in the *Blue Jay*. I thought the last one on "what can be done about the weather, etc." very apt. "So much in our back yards if we just learn to see it."

The most difficult part of editing this section is as usual deciding on the prize winner. Patricia Johnson, age 10, won the prize (a year's subscription to the *Blue Jay* with her account of her experiences raising fish.

Answers to the crossword puzzle in the last issue are as follows: Across—oak, fir, lodgepole, coniferous, ash. Down—pine, aspen, larch, poles, birch, sap.

## TWO LYNX AND A RED FOX AT YELLOW CREEK

by **Bohdan Pylypec**, age 14,  
Yellow Creek

This past summer while I was chasing our cows to the pasture in the evening I saw two lynx. At first they looked like a couple of coyotes, but as I got close, I found to my surprise they were lynx. I went to call my father and we went to observe the lynx more carefully. Meanwhile they

had gone away from where I had first seen them but they came back again.

From a distance we heard them making cat-like noises to each other as if they were quarrelling. As we got nearer we saw their grayish-buff, lightly spotted coats and their slender long bodies. Their feet were big and their ear tufts noticeable. Their tails were bobbed and had completely black tips. The lynx appeared to be unafraid of us and just stood staring. After a while they went off slowly towards a dense bush still making their cat-like noises.

While I was walking along the fence line this fall I came upon a red fox very unexpectedly. I didn't see the fox because he was hidden under a bush on the other side of the fence. Suddenly, the fox sprang out of his hiding place and swiftly ran over the field to the nearest bush. During those few moments I saw the fox's coat was reddish above and whitish below. He had a large bushy tail with a white tip, big ears, and black feet. When the fox was out of sight I found a dead Mallard with several shot gun pellets in its body. There were no teeth marks in it but I wondered if the fox was going to eat it because of his hunger.

## THE ANT MOVES A DRAGONFLY

by **Rita Mursell**, age 11, Parkman

During my summer holidays I saw a small black ant trying to pull a dead dragonfly down the road.

The dragonfly must have been at least three times as big as the ant. This small ant would pull the dragonfly about half an inch and then run all over it. The ant kept repeating this process.

What hard work it must have been!

My friend and I ran to tell our teacher, but when we returned a while later, there was no sign of ant or dragonfly and no sign of where they had gone.



## WASP NEST FOUND IN GROUND

by **Joyce Smith**, age 11, Parkman

I found a wasp hive in the ground. I dug a hole into their home and found wasps in big clusters sleeping. I took a wasp out and took it home and it didn't move at all. It must have been sleeping. I think they are going to spend the winter in the ground.

The little wasps are about half an inch long. Their bodies are yellow with black stripes. Their head is mostly black with about six stripes. The wasp has six legs. Its feelers are about as long as the wasp itself. It has wings as long as from its head to its tail and the color of these is bright brown. It looked like a hornet but smaller.

Their home is in the ground and they have many little holes in the ground. There is a plant growing in the main hole. I saw about fifty wasps in it.

I have caught a wasp and I'm taking it to school to study it.

## A RARITY IN EASTERN BLUEBIRD EGGS

by **Gordon Rourke**, age 16,  
Brandon, Manitoba

Nest #960 of our local bird box project is located several miles south and east of Alexander.

While helping in the work of checking nests in that area, on July 7, Mrs. J. Lane found that nest #960 contained a full set of rosy-white eggs. The eggs were actually white, but being quite fresh the reflection from the yolks shone through the shells, giving a rosy hue. There were five eggs in the set.

White Bluebird eggs are mentioned in a reference guide by Oliver Davie's *Nests and Eggs of North American Birds*. Oliver Davie says: "The normal color of the eggs is pale blue and rarely pure white." We shall be on the lookout next summer to see if this pair of bluebirds come back to the same area.

The nest was not visited again until early August, when it was found that the nesting had not been successful, the grass nest still contained three eggs and there was no sign of the adults. Two eggs were salvaged for future reference.

## GIANT WATER BUG

by **Oli Oleksyn**, age 9, Yellow Creek

Garry found a big insect near the porch light. It was black in color. It is about two inches long. It has wings to fly and legs to crawl or swim. Its body is protected by a hard shell.

We used *Insects* by Zim to identify it. The insect is a Giant Water Bug.

## OUR WOOLLY BEAR

by **Lionel Meszaros**, grade 4,  
Hazel Valley School

One day we found a woolly bear caterpillar so we put him in a jar with a screen on top. The next day when we came to school it was making its cocoon so we watched it. At night it crawled out of its cocoon and it lost its hair and went to sleep. It had crawled out of its skin and turned yellow-orange. Then it turned orange-brown and then brownish-black. When our woolly bear wakes up it will be a moth.

## A FISH TRAGEDY

by **Patricia Johnson**, age 10, Parkman

About the first of June Brenda Poitras and I went down to the creek with a couple of jars and things to get snails and things for experiments at school. We were looking at the water when we saw a school of fish going by. We sat down on a rock and tried catching them. We were disappointed when we caught only four. That meant two for Brenda and two for me. When I got home Mom was surprised to see the minnows and told me to go back and get a couple more fish and we could make an aquarium. Rod my brother, Rita and Kevein Morsell and I walked down to the creek armed to the teeth with jars and cups. We caught about forty-five or fifty fish.

At the same time we gathered three kinds of plants for our aquarium.

Note: This delightful narrative will be continued in the next issue of the *Blue Jay*.



## The Blue Jay Bookshelf

**THOREAU ON BIRDS.** Ed. by Helen Cruickshank. 1964. McGraw-Hill, New York, Toronto, London, 331 pp. \$7.95

Usually a reviewer examines a book for content, organization and language. In all respects this book is deserving of a high score. Helen Cruickshank is an estimable writer and is eminently qualified by ability, judgment and experience for a task of this importance and proportion. This is a book for nature lovers and other intelligent people. It is not for the run-of-the-mine reader who reads to keep from thinking.

In the introduction, Mrs. Cruickshank has given a brief biography of Thoreau and has set forth many of his strange ideas. Thoreau, if living today, would be excellent copy for inquiring reporters. In his speech at the Harvard Commencement he declared that the seventh should be man's day of toil and the other six his Sabbath of the affections and the soul. This arrangement would have appeared most impractical, of course, in a rural community like Concord where seeding and harvest required immediate action in their seasons. Thoreau, however, earned his living by working a month or, at most, six weeks in the year and spent the rest of the time in observation, thought and writing. At another time, he remarked that the labourer was not recompensed by his employer but by his labour. This would not be taken very seriously by the labour unions today! His ideas were quite often impractical, except those on conservation. When commenting on Thoreau's philosophy of life, one writer remarked that its unreality was its validity. It was not surprising that Thoreau has been quoted oftener than any other writer of English prose except Shakespeare.

The author has composed most of her material in *Thoreau on birds* from *Walden*, *The Journal*, *A Week on the Concord and Merrimac Rivers* and *The Maine Woods*. Thoreau's bird watching was casual but thorough. He so disciplined himself that he could remain silent and still for long periods. At the end of his stay at Walden he had tamed the wild birds of the area. Little birds would alight on his shoulder and hop down to eat from his hand. One of his friends remarked that you had

to see it to believe it. He loved all birds. The eagles, hawks and owls fascinated him. "I rejoice that there are owls. Let them do the idiotic and maniacal hooting for man," he said.

*The Journal* was one of Thoreau's most important works. The author has allotted 165 pages to "Some Species of Birds from Thoreau's Journal." This section is exceedingly interesting. Throughout this part of the book Mrs. Cruickshank has added her own bright and informative commentaries complementing Thoreau's excerpts. Thoreau's Concord bird list (150 species) and that of the Maine woods appear later in the book.

Thoreau initiated the most complete study ever made of any area of the United States. It is not surprising that Concord today has one of the most active groups of bird watchers in the country. Thoreau was the king of nature lovers and his spirit still reigns. Nature lovers everywhere are deeply indebted to Mrs. Cruickshank for this splendid book on him.—*John Campbell, Regina.*

**CATS OF THE WORLD.** By Armand Dennis. 1964. Constable and Co. Ltd., London. 119 pp. Illus. \$7.10.

This is the first in the Constable World Wild Life series published under the sponsorship of the World Wild Life fund, which is attempting to protect some of the rarer species and those approaching extinction. This book gives a world wide coverage to the cat family and gives the reader a wider view of these animals, showing how some of its members are in a very precarious position. It also shows how little we know of this large group, for of thirty-six members of the cat family only seven have been photographed in the wild, and six have no known specimen or photograph from which an illustration could be made. For these latter the author has had to rely on drawings made from descriptions.

Armand Dennis is very well known as a naturalist, particularly outside North America, and it was mainly due his efforts that films on wild life became very popular in Europe. He is best known for his work on African animals, the lion in particular. His



well written book, with its carefully selected photographs, gives a comprehensive list and description of each species as well as their present range and status. His style is easy to read; it contains much of interest to specialists and general reader alike. Stories of lions, tigers, snow leopards and other cats keep the reader entertained, while many of the detailed descriptions teach more about the cat family. For any one who is interested in conservation in general or cats in particular this book is well worth its price.—Tom White, Regina.

**The widespread pollution of soil, water and living things by toxic chemicals used in insect control programmes: an introduction to the subject through direct quotations from published reports. Compiled by M. T. Myres. September, 1964. 54 pp. +i-ii, mimeo. (Available free of charge from: The Department of Biology, University of Alberta at Calgary, Calgary, Alberta).**

This is a series of abstracts, 164 quotations from the existing published literature, arranged in chronological order and divided into six sections, and designed to be read from beginning to end as a book. Try it . . . if you start reading it, you won't be able to stop. But after reading it you will certainly wish that you could do something about this space-age problem. There is at least one thing that can be done: get a copy of this bulletin, read it, then pass it along to anyone else you know who can read and think. The author, excuse me, compiler has been careful to omit any personal opinions, but occasionally his biases show, e.g., in the following statement from the introductions: ". . . I have not been concerned with negative evidence but with positive evidence—actual incidents in all their scandalizing details." Some alarming details: "The application of aldrin over some 31,000 acres in southeastern and southwestern Michigan in the fall of 1959 caused a loss of 20,000 vertebrates . . ." "There was an unprecedented drop in the number of pairs of Golden Eagles rearing their young in the Western Highlands of Scotland between 1961-63 . . . The authors conclude that the decline is attributable mainly to . . . residues of chlorinated hydrocarbons, particularly dieldrin, in the adult birds and their eggs." ". . . 4 clutches of 24 scaup eggs were collected near Yellow-

knife, N.W.T. . . . all clutches of eggs contained insecticide residues . . . more DDT and metabolites than any duck collected . . ." And on and on, including reports, especially alarming, on declines of birds of prey, which seem less resistant to pesticide residues than other vertebrates, in England, Holland, and Israel! An American Ornithologists' Union Committee recently stated: "It is the belief of your committee that much evidence indicates that certain, if not all, raptors are faced with a menace that could bring about their extermination."

One can't resist quoting again from Myres' introduction:

"It will also be a good thing if public understanding is increased. As the examples from Britain particularly show, the general public (urban as well as rural) has a great part to play by reporting kills, or other evidence of adverse effects of biocide applications, to the appropriate wildlife, fishery or university department. Research workers cannot be everywhere at once, and many natural phenomena (and unnatural ones such as the ones we are concerned with here) go unrecorded unless those who discover them let those who need to know learn about them. At the more sophisticated level local natural history societies in other parts of the world have conducted elaborate censuses of carefully chosen areas to detect changes in animal populations from year to year, and through nest record schemes have provided evidence which helps the authorities to detect changes in reproductive abilities and behaviour in commoner birds. They should do so in Canada too, for it is their responsibility and they have a really important role to play by doing so."

If you have read all of the reviews of *Silent Spring* but not the book (by the late Rachel Carson) do so now. If you haven't read any reviews, find a copy of the *Blue Jay* for December, 1962, and peruse the excellent review by Dr. R. L. Edwards. Or if you think we're giving this too much emphasis, see the recent timely article by Dr. F. G. Cooch, Canad. Wildl. Service, in the November-December 1964 issue of *Canadian Audubon*: "Current developments in the biocide-wildlife field." If you don't have access to a copy, write for a reprint to the author, Canadian Wildlife Service, Ottawa.—R. W. Nero, Regina.



## Letters

### LYNX AND MOUNTAIN LION

**Hugh Hedger** of Dinsmore writes (November 6, 1964) that "there have been several lynx seen in the district this year, in fact more than last year," and that about ten miles east of Dinsmore "a mountain lion has been 'raising cane' with some of the farmers' cattle all year long. It has only been seen once, but has been stampeding cattle, driving them through fences and corrals all year long. It has killed three calves so far and could be responsible for the shortage of deer in the area."

**Genevieve Belliveau** of Ethelton sends a clipping from the Melfort Journal about a lynx attempting to capture a domestic goose on September 12, 1964, at the home of George Major of St. Brieux. The Major children, with considerable alertness, managed to shoot the raider. A photograph in the newspaper leaves no doubt as to the identity.

### OBSERVATIONS OF RED FOX PUPS

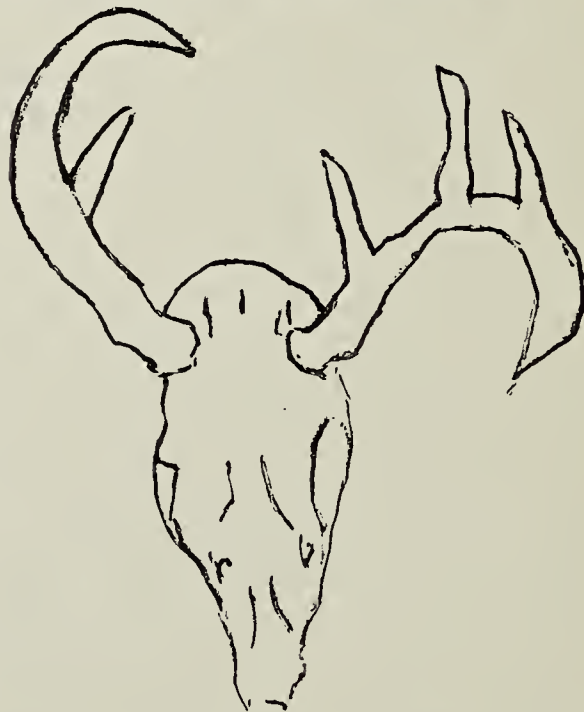
On June 7, 1964 I came upon some Red Fox pups near a wheat bin on our farm. By approaching stealthily I got within 15 feet of them and observed them for quite a while before they saw me—then, with a yelp they ran under the bin. This fox family must have moved in several days earlier, as the long grass was well trodden down and there were quite a few mice, remains of ducks, and even the head of a cat which we had shot during the winter. Determined to get pictures, I made several trips to their den. Once two adults ran in opposite directions when I was several yards from them. The pups just showed their black noses from under the bin, and once I picked up a small stick and touched one gently on the nose, whereupon it grabbed the stick and growled while we had a little tug-of-war. Next I picked up a duck bone and one took it from my hand, never showing more than the tip of its nose. As I was leaving I saw the adult coming home

with a duck. The next day they were gone.

About a month later my husband found that they were living in an old badger hole. Armed with my camera I set out to get pictures. By coming in from behind some brush and then crawling about 20 feet through long grass, I was able to get to within six feet of them. This time there were only two pups, both sitting scanning the horizon. When I starting winding the film, the sound seemed to fascinate them, for they stood up and held their heads to one side as if to listen, and came another foot closer to me. I got two pictures before one ran down the hole and the other took off into the bush.

They were gone the next day, but I have the pictures I went after; in addition, I have a memorable recollection of one of the pups eating grasshoppers, and crickets.—*Mrs. P. Churchman, Ellesboro.*

### MISSHAPEN ANTLERS



Several years ago an adult male White-tailed Deer was shot in the Dirt Hills south of Oungre. The rack of horns showed two very mismatched antlers. The left side of the head bore a symmetrically branched rack with three prongs as well as the terminal point. The right side carried an antler of matching length, but the terminal point instead of curving outwards followed the curve of the first antler



and had but the one prong! We were at a loss for an explanation, especially as we could see no injury.

When we ate the meat, however, the lead of a .22 calibre bullet was found. Since the animal had been shot with a 38-40 Winchester, and since there was no sign in injury in the spot, it was reasoned that it had received the .22 bullet the previous hunting season. It was remembered that the hindquarter from which the steak had been cut was on the side of the animal opposite the deformed antler.

According to Dr. F. F. Darling in his book *A Naturalist on Rona*, this injury could have accounted for the antler not developing properly: "The bodily condition of the stag is reflected in the antlers that grow in the year following an injury, when the antler on the opposite to that of an injury is reduced in size and malformed in more or less direct relation to the seriousness of the hurt. It is not easy to understand this close correspondence between injury and the growth of one antler only, but given the fact, the change in side is an obvious consequence of the lateral bundles of nerves crossing over at the base of the skull before passing into the brain proper."—Mrs. W. G. Durr, Bromhead.

## PRELUDE TO SILENCE

The adjectives "lonely," "barren," "desolate" are so often applied to our prairies. And with each new voice of the wild silenced in the name of progress, there will be one more reason to use those terms. Long gone, the call of the Whooping Crane, the plaintive coo of the Kit Fox. Going, the purling cry of the Sandhill Crane, the prairie symphony of the Coyote.

There were long years of silence after the last all-out campaign against the coyote, but gradually the land was re-awakening to the occasional coyote chorus. Then: in December, 1964 a local newspaper carried a sentence (and obituary) on the coyote—the column ran unbroken almost the full length of the page, listing the localities where poison bait was to be put out in the Swift Current-Shaunavon areas. Is this a sweeping blue-

print for all other areas where the coyote has made a partial return? Is it necessary? Could an awakened ecological conscience give parole?—J. David Chandler, Masefield-Shaunavon.

## SCREECH OWL AT MARGARET, MANITOBA

On December 21, 1964 I had the good fortune to capture a Screech Owl in our farm poultry house, at about 10.30 p.m. It had given the hens a bad scare, but did not touch them. I took it to the house for examination—it was an owl of the gray phase and measured about 9 inches. As this was my first observation of this small owl, I consulted Peterson's guide to make positive identification. It was then taken outside and released.—E. J. Bud White, Margaret, Man.

## SHARP-TAILED GROUSE DANCING GROUND

We have a sharptail dancing ground over a mile from our buildings and mornings and evenings you can hear them from spring to fall. One day last spring the teacher from our local school came out with my wife when she brought supper to the field near the dancing grounds and I suggested they take a look at the birds performing. As they drove over with the car, I saw a big flock fly away, but when they drove to the other side there were still over 50 carrying on with the dance. One lit within ten feet of the car.

When the birds are dancing they pay no attention to the boys and me if we have the tractor. This fall we loaded some prairie wool bales right close to them and they just kept on with the dance. There were two other dancing grounds I know of in the district that were broken up in late years, so they have perhaps all moved on to mine. My dancing ground was slated for wheat land too, but I've a notion to leave them their meeting place. We've never advertised the grounds as we thought it would make a too rewarding site when upland game bird season opens in the fall.—C. K. Greene, Elbow.



## BIRDWATCHING AT ITUNA

The pursuit of "birdwatching," when confined to the listing of species, is often criticized as superficial, but I have had many unexpected thrills over years of watching birds. There was the early June day when the big slough in the flats was black with scores of Northern Phalaropes, bobbing and swimming on the bright water. Once it was a pair of Buffleheads slanting to the small slough behind the house, and once—thrill of a lifetime—a pair of Wood Ducks, lovely in their migration plumage.

One spring we had a number of Harris' Sparrows in their jaunty black. We had never before heard their call notes, which were quite distinctive. Two years ago, Hawk Owls appeared on the farm and nested there—not just one pair, but two, another first. A year ago, I saw a family of White-winged Crossbills in late August, feeding on ripe sunflower heads. This spring I planted sunflowers, hoping to attract them to my garden, but never had a glimpse of any! The same fall I saw an American Redstart for the second time in my life, the first time being many years ago on a chilly October day when the first snow was falling.

This last summer brought its new experiences too. On the farm a new bird was seen and heard a number of times; from its size and appearance obviously a flycatcher, and from its somewhat raucous call we identified it tentatively as a Crested Flycatcher. This led me to look more closely at a small flock which had been frequenting the area around my town home. They too were flycatchers, gray-plumaged with yellow underparts. There were about a dozen in the flock, and they stayed around for nearly a month, but I was never quite positive about their identity. I shall be looking for them next spring!—*Mary F. Brennan, Ituna,*

## BLIZZARD LOSSES

At 7:00 a.m. on December 15, 1964 the 36-hour blizzard started, with a temperature of  $-25^{\circ}$  and a wind of up to 70 miles per hour. Out of a small flock of pheasants, three cocks and 10 hens, one hen survived and is still here one month later. Before the storm I

could see 100 pheasants some days, now maybe one to 10. What pheasants are left moved into the farm yards and are being fed by the farmers. The gray partridge weathered the storm better, but with a big loss. Two days after the blizzard I saw several with lumps of snow frozen on their backs and two with their feet frozen off, although all could still fly. They are trying to feed along the roads.

On January 14, 1965 I saw one sage hen; its condition looked good. We seldom see them this time of year—*C. H. Shulver, Woodrow.*

## INJURED WHOOPING CRANE

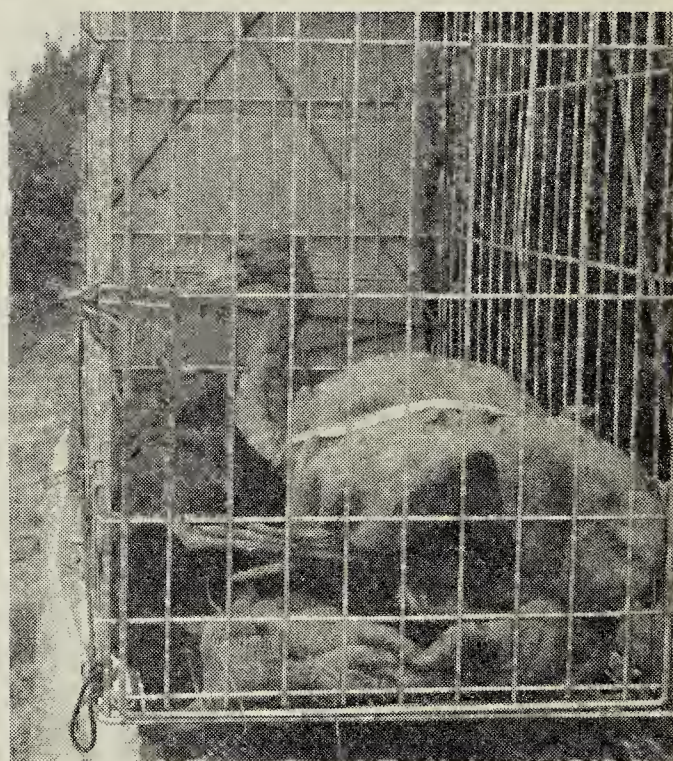


Photo by E. Kuyt

Injured Whooping Crane, Sass River, N.W.T., September 11, 1964

The snapshot shows the young Whooping Crane that Nick Novakowski and I picked up on the breeding grounds in Wood Buffalo Park, N.W.T. on 11 September 1964. This is the bird that was seen by Novakowski on an earlier trip. The bird suffered from a dislocation in the gleno-humeral articulation, **not**, as was reported in the U.S. press, from a fractured wing. The dislocation caused the right wing to "droop" and the bird repeatedly stepped on the trailing primaries, probably arresting healing of the injury. After catching the bird, which was done without difficulty when it tripped over a log, we bundled it in a sack and placed it in a metal dog-crate



alongside the helicopter (see photo). It was remarkably tame. I was struck by its brown appearance especially when the wings were folded in place. Droppings of the crane were purplish and contained seeds of berries (probably a species of blueberry). The bird appears to be making good progress in the Wildlife refuge in Colorado. Mr. Novakowski tells of the rescue of the crane in Audubon magazine (in press).—*E. Kuyt, Can. Wildl. Serv., Fort Smith, N.W.T.*

## UNUSUAL LOCOMOTORY BEHAVIOUR OF A GREBE

In the summer of 1935 a companion and I while using a rowboat on Madge Lake in Duck Mountain Provincial Park encountered a grebe, probably a Rednecked Grebe, which demonstrated an unusual means of movement. Essentially, when crowded into shallow water it escaped by apparently running along the bottom. We stood up in the boat, after the grebe had dived, and in the clear, shallow water (18 to 24 inches in depth) could see the grebe outlined against the light-colored bottom of the lake. We noted, as I clearly recall, that the head was thrust forward and the entire outline was streamlined as the bird moved quickly along the bottom. It appeared to be "running" on the bottom, for "puffs" of disturbed sediment approximately three or four feet apart were noted where the bird's feet had apparently touched the bottom. It is usual for the feet to be used in swimming, but on this occasion the grebe seemed to us to be deliberately striking the bottom for a better purchase and a faster speed.—*Walter H. Crocombe, Kamsack.*

## HUNTING HABITS OF THE GOSHAWK

I would like to see articles like Glen Fox's "Notes on the western race of the Pigeon Hawk" on all the birds of prey native to the prairies, for example, the Goshawk. This bird is not common in our area, but some falls we see a few. They sometimes attempt to catch pigeons here, and I have been amazed at the speed they can attain in a short distance. A

pigeon is a fairly fast bird when pursued, but on different occasions I have seen a Goshawk catch up with one three or four times, and the pigeon managed to get away only because of its agility in dodging. Apparently the Goshawk cannot keep this speed up for long, as he soon lands somewhere near and waits for the pigeon to settle again. It's easy to see that birds such as partridge, grouse and pheasant would not have much chance with this hawk as they cannot turn and manoeuvre very quickly.—*Sig O. Jordheim, White Bear.*

## WRENS IN GLASS JARS

Having seen House Wrens build their nests in the oddest places, I had the idea of inducing them to build in a glass jar. I had one in 1963 and one in 1964, and could see the nest all the time and keep a daily check on its progress. I kept the jar covered and when I wished to look at it, just uncovered the nest and there were the seven eggs which hatched into seven fledglings. The mother bird never seemed to mind my looking at her nest and would return as soon as I had got ten paces away. Ever since I was a boy at school I have been interested in birds and their nests, and I now have a collection of different small birds' nests which many school children and their teachers have seen displayed on a long table in my basement.—*Auguste Viala, Prince Albert.*

## AGILE HOUSE SPARROW

A Blue Jay note on "Interesting feeding behavior of the House Sparrow" (Dec., 1961), made me wonder whether the behaviour I saw about seven years ago would be of interest. A female sparrow, in trying to reach some weed seeds along our garden fence, would hang head downwards from the wire fence, pick at the weeds for a while, then drop to the ground. Sometimes, in order to reach the seeds, she hung by both feet, sometimes only by one. This performance was repeated several times, and for a couple of weeks we saw one sparrow do this many times.—*Genevieve Belliveau, Ethelton.*



## Club Notes

### ENTOMOLOGICAL MEETING

The twelfth annual meeting of the Entomological Society of Saskatchewan was held December 11, 1964, at Jay Dees Restaurant, Saskatoon.

Guest speakers were, Dr. J. Maybank, Saskatchewan Research Council and Dr. H. E. Robertson, Director, Provincial Laboratories, Regina. Papers presented by members of the Society covered topics ranging from an embryological study of the blister beetles to tips on outdoor photography of insects in general.

The meeting was followed in the evening by a banquet on the premises at which Mr. Bob Adams, Canadian Olympic coach, gave an interesting talk on his impressions of the 1964 Olympics in Japan.

Officers Elect for 1965: Past President, M. Taylor (Saskatoon); President, M. N. MacLeod (Saskatoon); Vice-President, L. O. T. Peterson (Indian Head); Secretary-Treasurer, W. W. A. Stewart (Saskatoon).

The Society membership is open to anyone interested in entomology. Amateur entomologists interested in becoming members are invited to contact the Secretary-Treasurer, Mr. W. W. A. Stewart, Canada Agricultural Research Station, University Sub Post Office, University of Saskatchewan, Saskatoon.

### BLUE JAY BACK COPIES WANTED

The College of Education Library wishes to enlist the assistance of *Blue Jay* readers in completing its collection of the *Blue Jay*. In order to make past issues more readily available to the students of the College of Education, we propose to have them bound and placed on the open shelf. Unfortunately, our collection is incomplete. We would very much appreciate information regarding the following: Volumes 1, 2, 3, 5, 6, 7; Volume 4, No. 1 and 2; Volume 12, No. 3; and Volume 14, No. 2. We have a few duplicate copies and may be able to help you complete your collection.—*Murray C. Shepherd*, College of Education, University of Saskatchewan, Regina Campus, Regina.

### SOCIETY HONOURED BY BEQUEST

On November 24, 1964, the executive of the Saskatchewan Natural History Society was notified that the late Constance Mary Wait of Saskatoon had bequeathed the sum of \$500.00 to the Society. This stirring gesture indicates Mrs. Wait's devotion to natural history and conservation, and her faith in our Society. This is an honour which should move us all to make a greater effort toward meeting our objectives.

### FREEMAN F. KING SCHOLARSHIP

The Victoria Natural History Society is setting up a scholarship at the University of Victoria in the name of Freeman F. King, to recognize his untiring efforts on behalf of young people. Mr. Freeman King, naturalist, writer, and outdoors-man, has spent the greater part of his life working with young people, first with the Boy Scouts and later through the Victoria Natural History Society. During his leadership of the Junior Branch of the Victoria Natural History Society he has conducted five annual summer camps for young naturalists and has inspired a number of young people to continue studies at the university. In 1964 he conducted the first Audubon Young Naturalists Camp in B.C.

The income from the trust fund being established will be used to award a scholarship in the Natural Sciences to a student selected by the University Scholarship Committee. Your assistance would be greatly appreciated. Cheques sent should be made payable to "The Freeman F. King Scholarship Fund, in trust" and mailed to Dr. John A. Chapman, Victoria Natural History Society, c/o Provincial Museum, Victoria, B.C.—*John A. Chapman*, Victoria.



## The President's Page

by A. O. Aschim, Prince Albert

The late ornithologist, Arthur A. Allen, tells us that the Archaeopteryx is the earliest known bird. A fossilized imprint found in Bavaria is thought to be 130 million years old, some 50 million years older than fossil birds discovered in Kansas representing the *Hesperornis* and the lesser known *Ichthyornis*. Fossil remains indicate that at least 167 species of birds have ceased to exist and are known only as fossils.

Almost within memory, several species of birds have vanished. Among these are the Great Auk, the Labrador Duck, the Passenger Pigeon, the Heath Hen, and the Eskimo Curlew. Money for the purchase of specimens of two of these extinct species—the Great Auk and the Labrador Duck—is now being solicited by the Royal Ontario Museum which does not have them in its fine bird collection. The Great Auk was last seen alive off the southwest point of Iceland on June 3, 1844, and the last specimen of the Labrador Duck was shot at Long Island, New York, in the fall of 1875. Would more intensive study of these species have prolonged their existence?

Probably this question can best be answered through our own patience in the present struggle to save the Whooping Crane, the California Condor and the Ivory-billed Woodpecker. Some ornithologists feel that the point of no return has been reached, particularly for the Ivory-billed Woodpecker and the California Condor. We are presently witnessing the greatest international co-operative conservation measure of all time in the last ditch stand for the saving of the Whooping Crane. Probably we are so engrossed with the plight of this now famous bird that we are not heeding the danger signals pointing to the disappearance of other native species right in our own habitat.

As a boy on the prairie, I recall the Prairie Chicken in fairly substantial numbers frequenting the "buck brush coulees." These were not the Sharp-tailed Grouse, although they were plentiful. How long is it since you saw a Prairie Chicken? I recall, too, seeing Whooping Cranes often enough



The Great Auk

that I never dreamed that in my time they might become extinct.

A. A. Allen makes the statement in his book, *Book of Bird Life*, that commercialization of wild life has always been the means of its extermination. Then he cites several examples of extinction or near extinction of certain wild life by the placing of a price upon their heads in the form of bounties, market demands or for feather trade. Today, some of these demands are no longer tolerated but these species may never recover from the effects of commercialization in the past.

Commercialization does not deserve all the blame, however, for the diminishing numbers of such birds as the Prairie Chicken. Lack of natural environment due to agriculture has taken its toll of many of our birds. On the other hand, what does the use of agricultural chemicals do to the birds that have adopted an agricultural habitat? It is as important to give our support to good conservation practice in these matters as it is to urge the setting aside of natural environment for wild life, as is now being done in nearly every faunal zone in North America.



## SNHS Summer Meet, 1965

### CANDLE LAKE, SASKATCHEWAN — JUNE 11, 12, 13



Marsh habitat at Candle Lake

Saskatchewan Government Photographic Services

Hosts for the Summer Meeting at beautiful Candle Lake, 60 miles north-east of Prince Albert, will be SNHS President A. O. Aschim and the Prince Albert Natural History Society.

**ACCOMMODATION:** Camping facilities available; also cabins, and 11 rooms at the Candle Lake Lodge. *Write for cabin or room reservations as soon as possible.* Lodge rooms at \$10 (twin beds and bath), \$9 (double bed and bath), or \$8 (double bed without bath). Cabins up to 8 miles from the Hall (headquarters) from \$3.50 per night (for 2 or 3 persons) to \$6.00-\$7.00 a night (for 6 or 7), and in most of these guests must supply bedding. All cabins have cooking facilities.

All reservations for cabins, rooms, meals, fish-fry Friday evening, Bar-B-Q supper at the Lodge Saturday, and for boats can be made by writing to S. I. Dawley, President, Candle Lake Tourist Association, 1927-11½ Avenue, Prince Albert.

**MEALS:** Friday evening the community offers a fish-fry for \$1.25 per person at the Fisher Creek Camp Grounds—do not miss this! Second special feature will be a Bar-B-Q supper at the Lodge Saturday, June 12, served on the grounds, for \$2.00 per person. Meals are also available at other restaurants.

**PROGRAMME:** Bird and flower hikes (including a trip to one of the best orchid areas in central Saskatchewan, and the possibility of seeing a Bald Eagle nest); visit to the laboratory and plots with the pathological staff at Candle Lake; a photography group led by Robert R. Taylor.

**REGISTRATION:** Register at the Hall on arrival; this is also the information centre.

**FOR FURTHER INFORMATION:** Write J. Ross Homer, Summer Meet Committee, 251 - 21st Street East, Prince Albert.



# THE SASKATCHEWAN NATURAL HISTORY SOCIETY

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<b>Past President</b> .....	Steve A. Mann, Skull Creek
<b>President</b> .....	A. O. Aschim, Box 1481, Prince Albert
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## BLUE JAY MAGAZINE

**Editor:** George F. Ledingham; **Assistant Editors:** Margaret Belcher, Robert W. Nero; **Junior Naturalists' Editor:** Joyce Deutscher.

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## MEMBERSHIP

Membership in the Saskatchewan Natural History Society is open to all persons interested in any aspects of nature. The classes of membership are as follows: *Regular*, \$2.00; *Supporting*, \$3.00; *Sustaining*, \$5.00; *Junior* (including schools), \$1.00. The *Blue Jay* and *Newsletter* are sent without charge to all members not in arrears for dues.

Winner of the membership drive and of Fred Lahrman's painting of the Prairie Dog country was Mrs. Keith Paton of Oxbow, who sent in 17 new adult memberships.

Send all renewals and new memberships to Frank Brazier, *Blue Jay*, Box 1121, Regina, Sask.

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Photo by F. G. Bard

White Pelican, a protected species; see Editor's Note, p. 24.

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**BY APRIL 15, 1965, TO**

**Robert W. Nero, Acting Editor of the Blue Jay,**  
**University of Saskatchewan, Regina Campus, Regina**







